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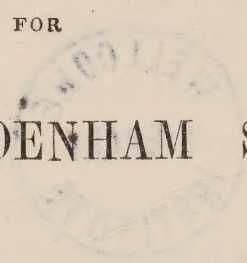


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A
YEAR-BOOK
OF
MEDICINE, SURGERY
AND THEIR
ALLIED SCIENCES,
FOR
1859.

EDITED BY
DR. HARLEY, DR. HANDFIELD JONES, MR. HULKE,
DR. GRAILY HEWITT, AND DR. ODLING,

FOR
THE NEW SYDENHAM SOCIETY.



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EDITOR'S PREFACE.

IN issuing the first volume of the New Sydenham Society's 'Annual Compendium of Scientific and Practical Medicine,' the members of the Society may not deem it superfluous, if the General Editor briefly explains the plan of the work, and the manner in which it has been executed.

The volume is divided into five departments, each of which has been entrusted to a separate editor. The first department, entitled the "Institutes of Medicine," includes reports on Anatomy, Physiology, Histology, and Animal Chemistry, and is, in fact, an epitome of science applied to practical medicine.

The second department contains the reports on Pathology, Therapeutics, Clinical Medicine, and Psychiatry.

In the third department are the reports on General, Aural, Ophthalmic, and Dental Surgery.

The fourth department is devoted to Midwifery and Diseases of Women and Children.

Whilst the fifth and last department includes Legal Medicine and Sanitary Science.

Each department has been systematically divided, and the materials so arranged, that the members will be able to find almost any subject without the trouble of referring to the Index, when

they are acquainted with the general plan of the volume. The value of a complete Index, however, has not been lost sight of, and special care has been taken to arrange it so that the reader may readily find the information sought for, although it be only the name of the author, the organ, or the disease, with which he is familiar.

The title of each work or paper is given in full at the commencement of each subdivision, and in all cases the foreign titles have been briefly translated.

The reports themselves consist of concise abstracts of the original matter contained in British and American medical journals and separate treatises, and of the epitomes of continental year-books. Among the year-books to which we are chiefly indebted may be mentioned 'Canstatt's Jahresbericht,' 'Schmidt's Jahrbucher,' 'Henle and Meissner's Bericht,' and the French 'Annales' of Noiret, of Jamain and Waher, and of Bouchardt and Sandras. As regards 'Schmidt's Jahrbucher,' the General Editor gladly embraces the opportunity of acknowledging the obligation due to its editors, Professors Winter and Richter, as well as to the proprietor, Mr. Otto Wigand, for the generous assistance they gave him and his colleagues in furthering the publication of the present volume, by transmitting directly the revise sheets of their valuable work as they issued from the press.

In making their abstracts, the Editors have generally avoided giving an opinion regarding the merits of any of the papers. They have merely classified them, so as to bring into juxtaposition the labours on each particular subject of medical men, scattered in every corner of the earth, and have thereby placed the reader in a favorable position for drawing his own general conclusions.

The authors whose material has been made use of, and who may think themselves restricted in the space assigned to them, are entreated to bear in mind that the reports of the Editors were

restricted by the space at their disposal; whilst members who may require fuller information on any special subject than could be here introduced, can readily refer to the original source of information which is in all cases indicated. Embarrassed by a superabundance of material, the Editors found it difficult to select; but in cases where it was absolutely necessary to choose one for abstract from among the several papers on analogous subjects, preference has been given to the labours of foreign authors, in order that the members of the Society might receive information of that kind which they could not otherwise easily obtain.

77, HARLEY STREET, W.;

July, 1860.

LIST OF ABBREVIATIONS REFERRED TO.

- (Acad. Belg.) Bulletins de l'Académie Royale Médicale Belgique.
- (Acad. Méd.) Bulletin de l'Académie de Médecine.
- (Amer. Med. Journ.) American Journal of Medical Sciences.
- (Amer. Quart.) North American Medico-Chirurgical Review.
- (Ann. d'Hyg.) Annales d'Hygiène publique et de Médecine légale.
- (An. de Med. et Chir.) Annuaire de Médecine et de Chirurgie Pratique, par Jamain et Wahn.
- (Arch. Gen. de Med.) Archives Generales de Médecine.
- (Archiv. of Med.) Beale's Archives of Medicine.
- (Baden) Aerztliche Mittheilungen aus Baden.
- (Bombay) Transactions of the Bombay Medical and Surgical Society.
- (Bouchardat) Annuaire de Thérapeutique, par Bouchardat.
- (Brit. and Foreign Rev.) British and Foreign Medico-Chirurgical Review.
- (Brit. Med.) British Medical Journal.
- (Bul. Acad. St. Peters.) Bulletin de l'Académie Imp. de St. Petersburg.
- (Canstatt) Canstatt's Jahresbericht über die Fortschritte in der Gesammten Medicin in allen Ländern.
- (Casper) Vierteljahrsschrift für gerichtliche und öffentliche Medecin, von S. L. Casper.
- (Comp. Rend.) Comptes Rendus de l'Académie des Sciences.
- (Compt. Soc. Biol.) Comptes Rendus de la Société de Biologie.
- (Conn. Méd.) Journal des Connaissances Médicales.
- (Deutsche) Deutsche Zeitschrift für die Staats—Arzneikunde.
- (Deut. Klin.) Deutsche Klinik.
- (Dub. Hosp. Gaz.) Dublin Hospital Gazette.
- (Dub. Med. Press) Dublin Medical Press.
- (Dub. Quart.) Dublin Quarterly Journal of Medical Science.
- (Edinb.) Edinburgh Monthly Medical Journal.
- (Friedreich) Blätter für gerichtliche Anthropologie von S. B. Friedreich.
- (Froriep's) Froriep's Neue Notizen.
- (Gaz. Hôp.) Gazette des Hôpitaux.
- (Gaz. Med. Paris) Gazette Medicale de Paris.
- (Glas. Med. Journ.) Glasgow Medical Journal.
- (Guy) Guy's Hospital Reports.
- (Henke) Henke's Zeitschrift für die Staats-Arzneikunde.
- (Henle) Henle und Pfeufer's Zeitschrift Müller's Archiv.
- (Hirzel) Zeitschrift für die Pharmacie von Dr. H. Hirzel.
- (Italian.) Csaz. Medica Italiana. Stati Sardi.
- (Jour. de Phys.) Journal de Physiologie.
- (Lancet) The Lancet.
- (Med. Circul.) Medical Circular.
- (Med. Times) The Medical Times and Gazette.
- (Micros. Jour.) Microscopic Journal.
- (Moleschott) Moleschott's Untersuchungen zur Naturlehre des Menschen und der Thiere.
- (Monit. Hôp.) Moniteur des Hôpitaux.
- (N. Y. Journ. Med.) New York Journal of Medicine.
- (Noirot) Annuaire de Littérature Med. étrangère, par Noirot.
- (Oesterr.) Oesterreichische Zeitschrift für practische Heilkunde.
- (Pharm.) Pharmaceutic Journal.
- (Prager) Prager Vierteljahrsschrift für die practische Heilkunde.

- (Preussen) Mediz. Zeitschrift herausgegeben von der Verein für Heilkunde in Preussen.
 (Proc. Roy. Soc.) Proceedings of the Royal Society.
 (Schmidt) Schmidt's Jahrbücher der Gesammten Medicin.
 (Trans. Roy. Soc.) Transactions of the Royal Society.
 (Wien Aertz.) Zeitschrift der Kaiserlich Königs. Gesellschaft der Aerzte zu Wien.
 (Wiener) Wiener Med. Wochenschrift.
 (Wittstein) Vierteljahrsschrift für practische Pharmacie von Wittstein.
 (Würtemb.) Correspondenzblatt des Würtemberger ärztlichen Vereins.
 (Würzburg) Verhandlungen der Physicalisch-Medicinischen Gesellschaft zu Würzburg.
 (Zeitschrift für wiss. Zool.) Siebold und Kolliker's Zeitschrift für wissens. Zoologie.

 E R R A T A.

P. 62,	line	27,	for	Czermack	read	Czermak.
78,	"	1,	"	Czermack	"	Czermak.
78,	"	4,	"	Eckard	"	Eckhard.
125,	last line,	"	"	Hirsel	"	Hirsch.
203,	line	21,	"	Austen	"	Austin.
220,	"	35,	"	1839	"	1859.
236,	"	21,	"	Oppolzen	"	Oppolzer.
236,	"	26,	"	Bean	"	Beau.
268,	last line but two	"	"	Beddoe	"	Beddoes.
281,	line	9,	"	Buller	"	Bulley.
286,	"	17,	"	Hennett	"	Hennet.
288,	last line but three	"	"	Wood	"	Ward.
289,	line	25,	"	Poupert	"	Paupert.
292,	"	12,	"	Harting	"	Hartung.
295,	"	25,	}	Hewitt	"	Hewit.
297,	"	1,				
300,	"	9,	"	Flemming	"	Fleming.
307,	"	1,	"	Pemburton	"	Pemberton.
310,	"	9,	"	Goselin	"	Gosselin.
310,	"	27 and 30,	"	Bonnett	"	Bonnet.
310,	"	31,	"	90	"	99.
310,	"	46,	"	Kinlock	"	Kinloch.
311,	"	1,	"	Sunborn	"	Sanborn.
312,	"	11,	"	Kinlock	"	Kinloch.
315,	"	28,	"	Sculborn	"	Sanborn.
316,	"	29,	"	Kirket	"	Birkett.
325,	"	34,	"	Warlemont	"	Warlomont.
328,	"	8,	"	Pearce	"	Péan.
330,	"	3,	"	Daniel	"	Daniell.
330,	"	14,	"	Villard	"	Villards.
333,	last line but three	"	"	Delose	"	Delore.
334,	line	12,	"	Bruek	"	Brück.
377,	"	3,	"	27	"	257.
384,	last line but one	"	"	—	"	Brück.
395,	line	26,	"	Gillette	"	Gillette.
408,	"	31,	"	Flemming	"	Fleming.

REPORT
ON THE
INSTITUTES OF MEDICINE,

COMPREHENDING

ANATOMY, PHYSIOLOGY, HISTOLOGY, CHEMISTRY, AND
PHYSICS.

BY

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MANUALS, GENERAL TREATISES, AND LECTURES.

- Dalton.**—Treatise on Human Physiology. *Philadelphia*, 1859. pp. 608.
- Todd.**—The Cyclopædia of Anatomy and Physiology. Parts li and lii. *London*.
- Humphry.**—On the Human Skeleton (including the joints). With numerous woodcuts. pp. 620. *Cambridge*, 1859.
- Knox.**—On the Relation of Anatomy to Physiology and Pathology; being a sequel to the 'Life and Labours of Xavier Bichat.' (A short essay in the *Lancet*, p. 479, May, 1859.)
- Ward.**—Outlines of Human Osteology. 2d ed., pp. 440. *London*, 1859.
- Holden.**—Manual of the Dissection of the Human Body. 8vo. *London*, 1859.
- Elemente der Speziellen Anatomie. [Elements of Special Anatomy.] 5th ed. *Weimar*, 1858. (Canstatt's Jahresbericht, 1859, vol. 1, p. 19. A pocket anatomical rememberer for the use of practitioners and students.)
- Le Gendre.**—Anatomie Chirurgicale Homolographique. *Paris*, 1858. pp. 45. (Schmidt's Jahrbucher, vol. 120, No. 4, p. 116. A description of the principal regions of the human body, illustrated with twenty-five plates, natural size, drawn from sections made on frozen bodies.)
- Eckhard.**—Contributions to Anatomy and Physiology. Second part, pp. 86—177. *Giessen*, 1858. (Schmidt, vol. 102, No. 4, p. 114.)
- Hyrthl.**—Handbook of Topographical Anatomy, with its practical application to Medicine and Surgery. 3d ed. *Vienna*, 1857. Vol. 1, pp. 594; vol. 2, pp. 513. (Schmidt, vol. 103, No. 8, p. 240.)

- Perrone.**—Trattato Elementare d'Anatomia Speciale. [An Elementary Treatise on Special Anatomy.] *Napoli*, 1857. In four vols. 12mo, pp. 495, 459, 777 and 266.
- Budge.**—Conservation der Leichen für Präparir und Chirurgische Operationsübungen. [On a Method of Preserving Anatomical "Subjects."] (Virchow's Archiv, vol. xv, p. 172, 1858. Schmidt, vol. 102, No. 5, p. 152.)
- Ambrosoli.**—On the Preservation of Anatomical Preparations by means of Glycerin. (Gaz. Lomb., No. 39, 1858. Schmidt, vol. 102, No. 5, p. 153.)
- Lister.**—Contributions to Physiology and Pathology. Plates, 4to. *London*, 1859.
- Heale.**—Treatise on Vital Causes. 8vo. *London*, 1859.
- Ludwig.**—Lehrbuch der Physiologie des Menschen. [Text-Book of Physiology.] Second and improved edition. *Leipzig and Heidelberg*, 1858.
- Longet.**—Traité de Physiologie. [Treatise on Physiology.] 8vo, 2d ed. *Paris*, 1858. (British and Foreign Medico-Chirurgical Review, April, 1859.)
- Funke.**—Lehrbuch der Physiologie für Akademische Vorlesungen und zum Selbststudium. [Text-book of Physiology.] 2d ed. 2 vols. 8vo. *Leipzig*, 1858. (British and Foreign Medico-Chirurgical Review, April, 1859.)
- Schiff.**—Lehrbuch der Physiologie. [Text-book of Physiology.] (First three parts.) 8vo. *Lahr*. 1858. (Canstatt, vol. 1, p. 28, 1859.)
- Ad. Fick.**—Compendium der Physiologie des Menschen. [Compendium of Human Physiology.] (First part.) 8vo. *Vienna*, 1859. (Canstatt, vol. 1, p. 28, 1859.)
- Arnold.**—Die Physiologische Anstalt der Univ. Heidelberg von 1853-8. [The Physiological Institution attached to the University of Heidelberg.] *Heidelberg*, 1858.
- Milne-Edwards.**—Leçons sur la Physiologie et l'Anatomie comparée de l'Homme et des Animaux. [Lectures on Comparative Anatomy and Physiology.] 8vo. *Paris*, 1858.
- Hannover.**—Statistiske Undersøgelser af laegevidenskabeligt Inhold. [Hospital Statistics.] *Copenhagen*, 1858. (Canstatt, vol. 1, p. 28.)
- Reynolds.**—The Facts and Laws of Life. *London*, 1859. (An introductory Lecture delivered at the opening of the Medical School of the Westminster Hospital.)
- Reichert.**—Studien des Physiologischen Instituts zu Breslau. *Leipzig*, 1858. (Contains, among other things, the author's paper on the Circulation in Fish, which will afterwards be referred to.)
- Auzeux.**—Leçons Elementaires d'Anatomie et de Physiologie Humaine et comparée sous les points de vue de l'Hygiène et de la Production agricole. [Elementary Lectures on Comparative Anatomy and Physiology.] 8vo. *Paris*, 1858. (No abstract.)
- Th. Bischoff.**—Ueber den Unterschied zwischen Mensch und Thier. 8vo. *Braunschweig*, 1858. (Canstatt, vol. 1, p. 28. Scientific discourse on the difference between Man and Beast, delivered in Munich in the winter of 1858.)
- Flourens.**—De la Vie et de l'Intelligence. [On Life and Intelligence.] 8vo. *Paris*, 1858. (No abstract.)
- Frey.**—Das einfachste thierische Leben. 4to. *Zurich*, 1858. (A sketch of animal life.)
- Picard.**—Darstellungsversuch einiger der Beziehungen der Physiologie zur Pathologie und Therapie. [Some Physiological and Pathological Experiments.] 8vo. *Würzburg*, 1856. (No abstract.)

- Bernard.**—Leçons sur les Propriétés Physiologiques, et les Alterations Pathologiques des Liquides de l'Organisme. [On the Animal Fluids.] Vols. i and ii. *Paris*, 1859.
- Bischoff.**—Ueber Johannes Müller und sein Verhältniss zum jetzigen Standpunkt der Physiologie. [Discourse on Professor Müller.] *München*, 1858. 4to. (Canstatt, vol. 1, p. 28.)
- Virchow.**—Johannes Müller. Eine Gedächtnissrede. [Discourse on Professor Müller.] *Berlin*, 1858. 8vo. (Canstatt, vol. 1, p. 28. (No abstract.)
- Seller.**—On some of the Metaphysical Aspects of Physiology. (Edinburgh Monthly Medical Journal, July, 1859, p. 1. A lecture delivered at a conversazione held on the invitation of the President and Fellows of the Royal College of Physicians of Edinburgh.)
- Jones.**—Descriptive Catalogue of the Preparations in the Museum of St. Thomas's Hospital. Vols. ii and iii. *London*, 1859.
- Lardner.**—Chemistry for Schools, with 170 Illustrations. pp. 243. 1859.
- Lehmann.**—Zoochemie. [Animal Chemistry.] *Heidelberg*, 1858. pp. 734. (Canstatt, vol. 1, p. 144.)
- Liebig.**—Chemische Briefe. 4th ed. *Heidelberg*, 1859. (Familiar Letters on Chemistry, translated by Dr. Blyth. 4th ed. *London*, 1859.)
- Kletzinsky.**—Compendium der Biochemie. *Vienna*, 1858. In two parts, and with eleven plates. (Scherer gives a critical review of this work on Animal Chemistry, and directs attention to a number of defects. Canstatt, vol. 1, p. 145.)
- Capezzuoli, Seraf.**—Trattato di Chimica Organica applicata alla Medicina. [Chemistry applied to Medicine.] *Firenze*, 1858-59. Fasc. i. (No abstract given in Canstatt.)
- Collingwood.**—On the Influence of the Microscope in Medicine. *Liverpool*, 1859. (An Introductory Lecture delivered at the opening of the Medical School in Liverpool.)
- Kölliker.**—Gewebelehre des Menschen. [Human Histology.] 3d ed. *Leipzig*, 1859.
- Virchow.**—Die Cellularpathologie in ihrer begründung auf Physiologische und Pathologische Gewebelehre. [Cellular Pathology.] *Berlin*, 1858. (British and Foreign Medico-Chirurgical Review, October, 1859.)
- Spengel.**—Mikroskopische Notizen über die Thermen von Ems. [Microscopical Observations on Ems' Waters.] (Virchow's Archiv, 1858, p. 163. Canstatt, vol. 1, p. 203.)
- Engert.**—Ueber Thierknospen und Zellen. Sitzungsberichte d. mathemat.-naturw. Klasse d. kaiserl. Akad. d. Wissensch. [Histology.] Vol. xxv, 1857. pp. 185. (Canstatt, vol. 1, p. 203.)
- Duben.**—In Stockholm. Leistungen des Mikroskops zum Zwecke der ärztlichen Diagnostik. [Practical Application of the Microscope to Clinical Medicine.] (Translated into German by Dr. L. Tutschek.) *Würzburg*, 1858. (Canstatt, vol. 1, p. 201.)
- Reinicke.**—Beiträge zur neuen Mikroskopie. [On the Microscope.] *Dresden*, 1858. (Canstatt, vol. 1, p. 201.)
- Harting.**—Das Mikroskop. Theorie, Gebrauch, Geschichte und gegenwärtiger Zustand desselben. [Treatise on the Construction and Application of the Microscope.] (Translated into German from the Hollandish, by Dr. W. Theile.) *Braunschweig*, 1859. (Canstatt, vol. 1, p. 201.)

- Wittich.**—Ueber das Verhalten der Farbstoffe, insbesondere der Carminlösung in Berührung mit todtten organischen Zellen. [On the Colouring of Tissues by means of Carmine.] (Königsb. med. Jahrb., i. Parts 1 and 2, p. 197. Canstatt, vol. 1, p. 201.)
- Aeby.**—Ueber die Symphysis ossium pubis des Menschen nebst Beiträgen zur Lehre vom hyalinen Knorpel und seiner Verknöcherung. [On the Human Pubis and Ossification of Cartilage.] (Henle und Pfeufer's Zeitschr. f. rat. Med. Vol. iv, parts 1 and 2, p. 1. Canstatt, vol. 1, p. 201.) *Heidelberg*, 1858.
- Gerlach.**—Mikroskopische Studien aus dem Gebiete der menschlichen Morphologie. [Histological Researches.] *Erlangen*, 1858.
- Billroth.**—Ueber die Epithelialzellen der Froschzunge, sowie über den Bau der Cylinder- und Flimmerepithelien und ihr Verhältniss zum Bindegewebe. [On Epithelium.] (Müller's Archiv, 1858. Canstatt, vol. 1, p. 201.)
- Berlin.**—Ueber die Blutkörperchen haltigen Zellen Archiv f. d. holländ. Beitr. z. Natur- u. Heilkundeherausg. v. Donders u. Berlin. [On Cells containing Blood-corpuscles.] *Utrecht*, 1857. pp. 356. (Canstatt, vol. 1, p. 203.)
- Radlkofer.**—Ueber die wahre Natur der Dotterplättchen. [The Ovum.] (Siebold's u. Kölliker's Zeitschr. f. wiss. Zool. Vol. ix, p. 529. Canstatt, vol. 1, p. 203.)
- Remak.**—Ueber die Theilung der Blutzellen beim Embryo. [On the Dividing of the Blood-corpuscles in the Embryo.] (Müller's Archiv, 1858, p. 178. Eight plates. Canstatt, vol. 1, p. 203.)

DALTON'S work on physiology is a large book of more than six hundred pages, illustrated with 254 woodcuts. He adopts Robin and Verdeil's plan of dividing the constituents of the body into immediate principles and anatomical elements. The work contains several original observations. In the preface the author says that it is offered to the profession of the United States as a means of communicating, in a condensed form, such new facts and ideas in physiology as have recently marked the progress of the science. Many of the topics discussed being of great practical importance to the practitioner, as likely to influence in various ways his views on pathology and therapeutics. Of the 254 illustrations in the book, only eleven have been borrowed from other writers.

In the chapter on food, the author calls special attention to the importance of the inorganic ingredients; points out the inefficiency of amylaceous and fatty substances, when used alone; describes the bad effects of an exclusive non-nitrogenous diet; and, lastly, alludes to the advantages, and even occasional necessity of cooking. The nature of the digestive process, the apparatus by which it is accomplished, both in man and the different species of animals, as well as the successive changes the food undergoes in the intestinal canal, is fully gone into.

The existence of sugar in the liver of all animals, its percentage,

its properties and composition, as well as its final metamorphosis and disappearance, is briefly alluded to.

DALTON made an artificial duodenal fistula on a dog, and with its aid studied the biliary function. He says that bile passes into the intestine in by far the largest quantity immediately after feeding, and within the first hour. After that time, its discharge remains pretty constant; not varying very much from sixteen grains of solid biliary matters per hour. The discharge of bile into the intestines continues even after the animal has been kept for many days without food. From these facts Dalton concludes that the bile is simply an *excrementitious fluid*, containing only ingredients resulting from the disintegration of the animal tissues, and not intended to perform any particular function, digestive or otherwise.

Section 2 is devoted to the consideration of the nervous system, and Section 3 to reproduction; both contain much interesting matter.

TODD'S CYCLOPÆDIA OF ANATOMY AND PHYSIOLOGY, a work which has been no less than twenty-four years in progress, is now completed. The new titlepages, preface, and index, are contained in the parts just published.

HUMPHRY, in his large work on the descriptive anatomy of the skeleton, tells us *why* such a bone is of such a form—*why* it has a facet on one particular point and not on another—*why* a tendon is inserted into this, and not into that ridge—*why* the inner plate of the skull is denser than the outer, &c., &c. From this it will be seen that the book is intended for the use of those who wish to learn something more than the bare facts of anatomy. ('British Medical Journal,' p. 228, 1859.)

WARD, and HOLDEN's works are new editions of manuals already in the hands of many of our readers. They are chiefly intended by their authors for the use of the student.

In the second part of ECKHARD'S 'Contributions to Anatomy and Physiology' are to be found original papers on the nerves and electric organs of the torpedo, on hydro-diffusion, on the endosmose of common salt, and on the theory of the cause of the heart's action.

The first edition of HYRTL'S 'Anatomy' appeared in 1847, and notwithstanding its size and price, before ten years have elapsed a third edition has been called for. The first half of the work is devoted

to the consideration of the head, neck, thorax, and abdomen; and the latter half to that of the pelvis, back, and upper and lower extremities. PERRONE's work on anatomy is merely a compilation.

BUDGE strongly recommends, for the preservation of bodies for anatomical purposes, an injection consisting of two ounces of wood-spirit, four ounces of sulphate of zinc, and seven pounds of water. He says that this will preserve a body during a whole summer, and has the great advantage of neither destroying the colour of the muscles, injuring the knives, nor preventing the employment of coloured injections.

AMBROSOLI, on the other hand, recommends the putting up of specimens in glycerin, and the preservation of entire bodies by injecting it into the vessels. The first plan is neither unknown nor new in England. The second is of little value, as it is attended with success only in cold weather.

LISTER's 'Contributions to Physiology and Pathology' consist of communications made to the Royal Society in 1857-8, and published in their 'Transactions.' The first is entitled "An inquiry regarding the parts of the nervous system which regulate the contraction of the arteries;" the second, "On the cutaneous pigmentary system of the frog;" and the third, "On the early stages of inflammation." The author says, that the first and second papers were read as supplements to the essay on the last; but that in accordance with a recommendation from the council, he extended his investigations into the subject of the present memoir.

Some cases are mentioned to show that in the early stages of inflammation occurring in the human subject, as, for example, after the application of an irritant, such as mustard, the minute vessels become abnormally loaded with red blood, the corpuscles of which ultimately become arrested, prior to the occurrence of effusion. He afterwards says, that the conclusions which he arrived at from studying the process on the frog apply equally well to the same morbid process in man. The *rouleaux*, he thinks, are simply the result of the shape of the corpuscles, together with a slight degree of adhesiveness which retains them pretty firmly attached, when their flat surfaces are applied to each other. The aggregating tendency of the red discs is thus regarded as a phenomenon similar in kind, though inferior in degree, to the well-known adhesiveness of the white corpuscles, and varies according to physical circumstances, and slight chemical actions.

In the smallest arteries of the web of the frog's foot the middle coat is composed of muscular fibre-cells wrapped spirally round the internal membrane, and Lister thinks that the arteries regulate by their contractility the quantity of blood transmitted in a given time through the capillaries. The contractility being in its turn regulated by a part of the spinal cord. Tepid water applied to the frog's foot first induced constriction, then dilatation of the arteries. When the temperature of the water was more elevated, the corpuscles of the blood were obstructed in their progress, even when the vessels were fully dilated,—and a continuance of the irritation soon caused the minute vessels to be choked up. Irritation produced by the employment of salt, mustard, essential oils, chloroform, heat, galvanism, or mechanical violence, gave rise to exactly similar effects. On applying an irritant it was noticed that, at first, the abnormal adhesiveness of the blood-corpuscles was limited to the spot acted on; it afterwards, however, extended to the neighbouring capillaries. When the same irritants were applied to freshly drawn blood, they seemed to diminish rather than to increase the adhesiveness of the corpuscles. The results of some other experiments led the author to conclude that mere quiescence of the blood does not of itself give rise to an aggregation of the red corpuscles within the vessels, unless the tissues are in an unhealthy condition; and that therefore the healthy tissues exert an influence on the blood in their vicinity, by means of which the corpuscles are prevented from adhering together. While in an inflamed part this influence is in abeyance.

In the second paper the author calls attention to the fact of the pigment-cells of the frog's skin being sometimes of a stellate figure, with minute, ramifying rays,—at other times, of a contracted, rounded form, the change of shape being produced, according to German observers, by the contraction and dilatation of the pigment-cells. Lister, however, believes that the true explanation is that, the form of the cells remain unchanged, but that the pigment-granules are, on the one hand, attracted into the centre of the cell, or, on the other, repelled into the minutest recesses of the ramifying rays, both the attractive and repulsive forces residing in the nucleus. Our author concludes by saying, that it may be looked upon as a fundamental principle, that whenever inflammatory congestion exists in any degree, the tissues of the affected part experience a proportionate functional activity or vital energy.

In his text-book on physiology, LUDWIG limits himself almost entirely to the consideration of the chemistry and physics of life, and thereby presents a striking contrast to the views advocated by Heale, in his book on the vital causes. Ludwig remarks, in his preface, that pathologists are often complaining of the unpractical direction of physical physiology, forgetting that physiology can never be of much use to pathology until it has solved the problem of "healthy life." When the medical practitioner thoroughly understands a healthy process, he will readily discover the conditions requiring to be changed in order to reproduce in a diseased part a normal healthy action. It is not, he says, in the dead-house, but in the physiological laboratory, that the fundamental laws of diseased, as well as healthy, action must be studied.

In the first section of the first volume, the elements, and the organic compounds out of which the human body is built, are considered, and in the second part, the nerves and muscles, as well as the physiology of the senses, are treated of. The second volume, on the other hand, is devoted to the development and decay of the tissues and fluids of the body, and concludes with a chapter on animal heat. When on the elements entering into the composition of the human body, the author remarks, that as often as we analyse the animal organs and tissues, we are forced to the conclusion that they are ultimately composed of a very small proportion of chemical atoms, associated with light, heat, and electricity. From which circumstance we are forced to conclude, that the animal phenomena are the result of the same forms of simple attraction and repulsion which are observed in all elementary bodies. It having been ascertained that by the action of heat, light, electricity, and other chemical agents, all the organic animal compounds may be decomposed, and that this decomposition does not directly yield the elements themselves, but only the "immediate principles," physiologists as well as chemists have come to the conclusion, that the complex organic combinations which we find in the tissues are not the result of the direct union of simple elements, but of a series of compounds, which are themselves aggregations of individual atoms. The first element which Ludwig considers is oxygen—a gas which, as is well known, is found in every part of the animal body, in the fluids as well as in the solids, both in a free, and in a combined state; but which was not supposed until very recently to occur in the form of ozone. Schönbein was the first to call attention to this fact; and a

few months ago M. de Luca has shown that the oxygen exhaled by the leaves of plants in the sun's light presents the properties of ozone. Schönbein had previously pointed out, however, that the juice of certain mushrooms changed oxygen gas into that substance. Ludwig says, that if we suppose that ozone exists in the animal body, we can easily comprehend how substances are therein consumed without any great increase of temperature. Animal combustion is peculiar, not only on that account, but also because of its products being different from any met with in ordinary combustion. They nevertheless resemble each other in several important particulars; for example, urea is a product of animal combustion in the healthy body, and it can be formed artificially from albumen by a process of slow combustion, effected by means of a solution of permanganate of potash, at a temperature of 176° Fahr.

When on the subject of nerve-force, our author remarks that its source is most probably to be found in the chemical decomposition of the substances composing the nerves. In proof of this, he says that nerves only retain their irritability so long as they possess a definite chemical composition,—and that living nerves in an excited, as well as in a non-excited, condition, gradually lose their normal composition. For example, heat, which evaporates the water from the nerves, destroys their irritability just as much as an excess of water, which removes their salts. The same effect is produced by substances which coagulate their albumen or attack their fats.

LONGET'S treatise on physiology has been coming out in parts during the last eight or nine years, and is only now completed. It is a large work, in two volumes; and although, like all text-books, it is more or less a compilation, it yet has a considerable quantity of original matter scattered through its pages. The author, although of the advanced school, does not advocate the ultra views of some chemico-physical writers. He seems more inclined to steer a middle course; for when treating of the properties and functions of the nervous system, he remarks that some observers, perhaps the majority, are strongly inclined to the opinion that nerve-force is identical in its nature with electricity; while others, again, think that, although it closely resembles electricity in many respects, it is nevertheless a peculiar principle. But after having examined with impartiality the numerous facts upon which both theories are founded, it appears to him that there are not at the present moment sufficient grounds to authorise his adopting the views of the former.

He therefore inclines to the opinion that the active principle of nerve-matter is a force *sui generis*.

FUNKE'S manual is a new and modified edition of 'Wagner's Physiology,' which had for some years been out of print. The last edition of Wagner's book was published in 1844, and five years ago a new edition of it appeared, edited by Dr. Funke. The latter differed so much from the former edition, both as regards plan and substance, that the editor replaced Wagner's name by his own. Funke, as is well known, has paid considerable attention to the formation of crystals in blood. While upon this subject, he remarks that, under certain external influences, the organic colouring matter, which is an essential part of the contents of the red corpuscles, can be made to assume, in any animal's blood, a crystalline form; the blood of each species of animal possessing, however, its own characteristic form of crystals. So much, indeed, is this the case, that by the shape of the crystals alone it is in many cases possible to tell the species of animal from which the blood was taken. Funke still adheres to his former opinion regarding the nature of these crystals, and has filled no less than three pages in trying to prove that hæmato-crystalline is not a compound, but a simple body. Some of his own arguments are, unfortunately, opposed to his theory; for in the end he has been forced to admit that the crystals have no very definite chemical composition, and sometimes contain a lesser, sometimes a greater, proportion of inorganic matter,—which they leave behind on incineration.

Of SCHIFF'S manual, only the first three parts of the first volume, and of FICK'S only the first part, is published; so that we can at present give no extracts. ARNOLD, after giving a description of the Physiological Institute at Heidelberg, relates the results of some of the experiments performed in it from 1853 to 1858. These will afterwards be referred to under their various heads.

MILNE-EDWARDS has published the first two volumes of a large work 'On Comparative Physiology.' They treat of respiration, and circulation. HANNOVER gives the statistics of births, deaths, and diseases treated in the hospitals of Copenhagen.

BERNARD states, in his lectures on the animal fluids, that on injecting 1120 c.c. of water into the jugular vein of a dog weighing five pounds, the secretion of the submaxillary gland and of the pancreas gradually ceased. Also that, after a short time, the urinary bladder was found empty. The biliary secretion was the only one

that continued, and this, Bernard thinks, depended more on a mechanical infiltration than on a true secretion.

In the second part of the volume Bernard, speaking of his already published experiments on the pressure of the blood in the arteries, remarks that when the cervical sympathetic is divided, the pressure in the carotid artery increases, the temperature of the part of the body supplied by it is heightened, and the blood in the veins remains red. Galvanism applied to the cut end of the nerve removes these effects. In the next section, he treats of the effects of secretion on the colour of the blood—a point to be afterwards alluded to under the head “Secretion.”

In vol. ii Bernard remarks that he found the urine of the rabbit acid after the animal had respired pure oxygen gas. While speaking of another experiment, he says the quantity of urine which the kidneys of a dog secreted increased as the pressure of the blood in the carotids augmented. The chapters on the perspiration, the bile, the milk, the saliva, and the pancreatic juice, contain, Valentine says, scarcely anything new. In several of them Bernard defends his own views, which have been attacked by other writers.

LARDNER'S book “comprehends as much of the elements of chemistry as may, with moderate attention, be acquired within a reasonable time by the younger class of students, and even as much as may suffice for those who, being more advanced in life, desire merely to obtain a general knowledge of the elements of the material world.”—*Preface*.

LEHMANN'S works on animal chemistry are so well known that it is only necessary to indicate the contents of the present volume. It treats, first, of the nature and properties of the animal fluids; secondly, of the tissues; and thirdly, of the metamorphosis of tissue, &c.

LIEBIG'S ‘Chemical Letters’ are familiar to our readers, in the form of Gregory's translation, a later edition of which has now appeared, edited by Dr. Blyth, and, as stated in the preface, besides extending considerably the former letters, the author has, in the present edition, added a number of new letters, which refer to general scientific questions, and to the most remarkable discoveries recently made in the departments of chemistry and physics. Among these are, Letter 2d, on the study of the natural sciences; Letter 13th, on the correlation of the forces of inorganic nature; Letter 15th, on the alteration of properties in bodies; and Letter 23d, on materialism in connexion with natural inquiries.

KÖLLIKER'S work on the microscopic anatomy of the tissues embraces a wide range of subjects, and the literature of almost every one of them is extended by the author's own researches. There being an English translation of the first edition of this work, for further information, we must refer our readers to it.

VIRCHOW expounds a new theory regarding the process of inflammation, and the first steps in the formation of morbid growths. He says that the spindle-shaped corpuscles of tendon, and of all connective tissue, form an anastomosing network, by means of fine tubes which proceed out of them in all directions. The first step in the inflammatory process is the enlargement of these corpuscles, together with an increase in size, and subdivision of their nuclei. The nuclei then go on enlarging and multiplying by endogenous growth, till the formation of pus is the result. Pus-cells are never, he says, formed by an aggregation of granules, as has been represented as occurring in the smallpox-pustule. A cell can only be formed from a cell.

In the suppuration of mucous membranes, it is the epithelium-cells that become transformed into pus-corpuscles. Such, for example, is the case in gonorrhœa, where we have the formation of pus without ulceration. The cylindrical variety of epithelium is much less disposed to form pus. On accurate observation, the yellow matter which it produces is found to be only modified epithelium, though of a very purulent appearance. (Example, diphtheritic exudation.¹) In the suppuration of muscle, the pus-cells form in the so-called nuclei of the sarcolemma, which, according to Virchow, are the nuclei of the connective-tissue-corpuscles. Fatty degeneration, he says, also commences in these corpuscles.

¹ Attention was called to this fact in the discussion which followed the reading of a paper on diphtheria at the meeting of the Royal Medical Society, 17th January, 1859. One of the speakers said that the exudation on the fauces in cases of diphtheria was composed of an excessive and modified secretion of the mucus-cells and epithelium-scales proper to the part of the throat from which it was removed. It has since been observed that a diphtheritic false membrane from the eye, although it had all the external appearance of pus, on microscopic examination proved to be entirely composed of enlarged and modified conjunctival epithelium-scales.

OSSEOUS SYSTEM, INCLUDING CARTILAGE AND TEETH.

- Owen.**—On the Vertebral Characters of the Order *Pterosauria* (Ow.), as exemplified in the Genera *Pterodactylus* (Cuv.) and *Dimorphodon* (Ow.) (Proc. Roy. Soc., No. 34, p. 703.)
- Owen.**—Fossil Mammals of Australia (Part 1). Description of a mutilated skull of a large Marsupial Carnivore. *Thylacoleo Carnifex* (Ow.) (Proc. Royal Soc., No. 34, p. 585.)
- Ollier.**—On the Artificial Production of Bone, by the Transplantation of the Periosteum, and by Osseous Grafts. (Med. Times and Gaz., 7th May, 1859, p. 476. Journal de Physiol., Jan. 1859. Gaz. Med. de Paris, 1859, Nos. 14-15.)
- Kölliker.**—On the Different Types in the Microscopic Structure of the Skeleton of Osseous Fishes. (Proc. Royal Soc., No. 34, p. 656.)
- Recklinghausen.**—Die mineralischen Bestandtheile junger Menschenknochen. [On the Earthy Constitutents of Young Bones.] (Virchow's Arch., vol. xiv, parts 5 and 6. Schmidt, vol. 101, No. 3, p. 285; and Scherer's report in Canstatt, vol. 1, p. 168.)
- Bezold.**—Das chemische Skelett der Wirbelthiere. [On the Chemistry of the Skeleton.] (Zeitschr. f. Wissen. Zoolog., 1858, pp. 240—269. Schmidt, vol. 101, No. 3, p. 283.)
- Budge-Lewison.**—Ueber die Ernährung der Knochen. [On the Nutrition of Bone.] (Deutsche Klinik, Oct. 1858, p. 393-394.)
- Fick.**—Untersuchungen ueber die Ursachen der Knochenformen. [On the Laws which regulate the Form of Bones.] 4to. Marburg, 1859.
- Luschka.**—On the Synarthrosis (Halbgelenke) of the Human Body. A Monograph, with six copper-plates. Berlin, 1858. pp. 144. (Schmidt, vol. 101, No. 1, p. 125.)
- Luschka.**—Ueber Halsrippen. [On Cervical Ribs.] (Extract from the Vien. Wochensk., No. 5, read before the Vienna Academy, 21st Jan., 1858.)
- Luschka.**—Das Nebenthänenbein des Menschen. [On the Human Lachrymal Bones.] (Müller's Archiv, 1858, No. 3. Canstatt, vol. i, p. 19.)
- Martins.**—Résumé d'un Memoire sur la Comparaison des Membres Pelviens et Thoraciques de l'Homme et des Mammifères. [A Comparison between the Thoracic and Pelvic Members in Man and other Animals.] (Gaz. Hebd., No. 47, 1857.)
- Wenzel Gruber.**—Der Pankendeckenknochen des Menschen. [On the Human Ossiculum tegmenti tympani.] (Bulletin de l'Acad. Imp. St. Petersburg, vol. xvii, No. 21, pp. 324—9. Schmidt, vol. 102, No. 4, p. 7.)
- Schwegel.**—Knochenvarietäten. [On Abnormal Bones.] (H. u. Pf.'s Ztschr., 3d series, vol. v, pp. 283—319. Schmidt, vol. 103, No. 7, p. 11.)
- Quatrefages.**—Note sur l'Angle Pariétal et sur un goniomètre destiné à le Mesurer. [On an Instrument for Measuring the Parietal Angle.] (Compte Rendu, 26 Avril, 1858. No abstract.)
- Müller.**—Ueber die Entwicklung der Knochensubstanz, nebst Bemerkungen über den Bau rhachitischer Knochen. [On the Development of Bone, and on Rickety Bones.] (v. Siebold's u. Kölliker's Zeitschr. f. wiss. Zool., vol. ix s. 147.)

- Huxley.**—On the Development of some parts of the Skeleton of Fishes. (Micros. Jour., 1859, p. 33.)
- Raney.**—On the mode of Formation of Shells of Animals, of Bone, and of several other Structures. 4to. pp. 153. London, 1858. (Reviewed in Micros. Jour., 1859, pp. 109.)

CARTILAGE.

- Webb.**—Microscopical Examination of a Loose Cartilage from the Knee-joint. (Micros. Jour., 1859, p. 11.)
- Barwell.**—On the Nutrition, Inflammation, and Ulceration of Articular Cartilage. (British and Foreign Med.-Chir. Rev., Oct. 1859, pp. 486—500.)
- Freund.**—Zur Histologie der Rippenknorren in Normalem und Pathologischem Zustande. [On the Histology of Rib-cartilage.] With three plates. Breslau, 1858. (Canstatt, vol. 1, p. 227.)
- Aeby.**—Ueber die Symphysis Ossium Pubis des Menschen, &c. [On the Pubis and Ossification of Cartilage.] (Henle u. Pf.'s Zeitschr., vol. iv, p. 1. Canstatt, vol. 1, p. 227.)

TEETH.

- Raney.**—On the Structure and Mode of Formation of the Dental Tissues. (Micros. Jour., 1859, p. 212.)
- Magiot.**—Etudes sur le Developpement et la Structure des Dents Humains. [On the Development and Structure of the Human Teeth.] (Archiv. Gen. de Med., Jan. 1858.)
- Guillot.**—Recherches sur le Developpement des Dents. [On the Development of the Teeth.] (Compt. Rend., March 29th, 1858.)

OWEN says, the question of the vertebral characters of the Pterodactyles is specially interesting with reference to the carrying out the comparison of their skeleton with that of birds. From his investigations of the species of *Pterosauria*, extending from the period of the Lias, as exemplified by the *Dimorphodon macronyx*, to the Upper Green-sand, as exemplified by the *Pterodactylus Sedgwickii*, and *Pter. Fittoni*. The author has ascertained the fact that, with respect to the cervical and dorso-lumbar vertebræ, the terminal articular surfaces of the vertebral bodies are simply concave anteriorly and convex posteriorly; and that they consequently manifest the earliest known instance of the “procœlian” type which now prevails in the reptilian class. But in no other reptile, he says, are those articular surfaces so narrow vertically, in proportion to their breadth, as they are in the cervical vertebræ of the *Pterosauria*. In

the dorsal series the cup and ball present more ordinary Saurian proportions.

OWEN describes a fossil skull, and certain of the teeth of a quadruped of the size of a lion, in which he points out the characters indicative of its carnivorous habits, and of its affinities to the marsupial order. The large size of the temporal fossæ, together with the large carnassial teeth, both in the upper and lower jaws, evince the carnivorous habits of the extinct species. While the vacuity in the bony palate; large lachrymal bone, perforated by the canal anterior and external to the orbit; the separation of the tympanic from the petrous bone; the development of the "bullæ auditoria" in the alisphenoid; the low and broad occiput, and the very small relative capacity of the brain-case, &c., lead him to believe that it belongs to the marsupial class.

OLLIER'S experiments are exceedingly curious. He found that—1. A flap of periosteum retaining its attachment to the bone by one end, lodged among the muscles, under the skin, or elsewhere, contracts adhesions with the surrounding parts, and forms new bone on its under surface. The new bone, assuming the form and disposition of the flap, adheres to the old bone whence the periosteum was peeled off. 2. The communicating pedicle of the flap may be excised three or four days after the transplantation, and the process of ossification still continue. 3. The periosteum may be entirely detached from the bone, and lodged in a distant part of the body, and yet osseous deposit occur. 4. Pieces of bone separated from the soft parts, but retaining their periosteum, may be transplanted, and live in new localities.

KÖLLIKER says, *that a great many genera of osseous fishes possess no bone-corpuscles, radiated or fusiform in their skeleton, and therefore no real osseous tissue.* In 1850 Williamson pointed out the absence of bone-corpuscles in the bones of the cod, haddock, perch, plaice, pike, and various other fishes, distinguishing them in this respect from the bones of the eel, in which the corpuscles are abundant. Kölliker gives a very long list of the fishes he examined, and concludes that the osseous fishes, notwithstanding their great number, are separated in a very remarkable way into two groups: all the higher organized tribes of *Physostomi* possessing bone-corpuscles; all the numerous tribes of the *Acanthopteri*, with the exception of the genus *Thynnus*, having none.

Kölliker also extended his observations to the hard structures of

the skin of fishes and of the rays of the fins ; and found that the same laws which hold good in the structure of the endo-skeleton apply equally to the exo-skeleton.

RECKLINGHAUSEN made a quantitative analysis of bones, and found that the inorganic matter, at various ages, differed very little either as regards the relative or absolute quantity present. The difference of age is chiefly seen in the quantity of accessory substances. The analysis of the spongy, and of the solid parts of the bone resembled each other very closely. The results he obtained are therefore seen to be in many respects different from those of previous observers, Heintz, Bibra, &c., as well as of Bezold, who found that the chemical composition of the skeleton of vertebrated animals varies at different ages. The quantity of chlorine diminishes as life advances, while that of sulphur and phosphorus increases, especially the latter. Magnesia increases in relative proportion to chalk and organic substance. The iron also increases proportionately with the organic matters. The fixed alkalies, on the other hand, remain stationary.

LEWISON placed silver rings on the periosteum of the leg-bones of pigeons, and on killing them from two to eleven months afterwards found that they had caused an exudation, and a copious deposit of bony matter.

FICK relates some experiments on animals, the results of which led him to the conclusion, that the form of particular bones greatly depends on mechanical influences. As a general rule, bones have a tendency to grow in the direction of the least resistance.

In his monograph, LUSCHKA treats of the development and relations of the vertebral, sternal, and pelvic joints. He divides all the joints of the body into two great classes, one of which he calls hollow joints (*hohle knochenverbindungen*), and the other solid (*solide knochenverbindungen*). The hollow joints he again divides into perfect (pandiarthrosis), and half joints (hemiarthrosis). The latter are those usually termed synarthrosis, and it is of these that he principally treats on the present occasion.

In seven skulls out of sixty, LUSCHKA found a small, irregular, four-sided bone in front of the os lachrymale. In two of the skulls there was a bone of this description on both sides of the head. Wittich says, this bone is neither the os lachrymale externum of Rousseau, nor the satura longitudinalis imperfecta of Weber.

MARTIN says, that the humerus is a bone twisted upon its axis.

The twist is of 180 degrees in the terrestrial and aquatic mammalia; 90 degrees in birds and reptiles. The neck is twisted 90 degrees in the mammalia. In order to compare the humerus with the femur, which is a straight bone, it is necessary to untwist it 180 degrees. This alone is sufficient to reduce the thoracic to the type of the pelvic member. He also compares the tibia, the pelvis, the shoulder, &c.

GRUBER found the ossiculum tegmenti tympani seven times in six skulls; in one of them on both sides. He also describes, as a frequent occurrence, a pons cuneiformis, and gives to it the name of the ossiculum tegmenti tympani cuneiforme.

SCHWEGEL describes all the abnormal bones that came under his notice during the three years that he acted as demonstrator in the Medical School at Prague.

MULLER, in his researches on the development of bone, has confirmed the statement made by Sharpey in 1845, regarding the manner in which osseous tissue is formed in cartilage. Nisbet, in 1736, said that bones were formed in two ways, some being formed in a membrane, others originating in cartilage, and that in the latter case the cartilaginous tissue did not constitute a part of the bone, but was removed by absorption. Little attention was paid to the latter view, until Sharpey demonstrated, by histological investigation, that it was correct. Moreover, he pointed out that, although a portion of the cartilage is in the first instance ossified, yet it does not remain to constitute any part of the permanent bone. The latter is, in fact, produced by the ossification of a membranous blastema, something like what occurs in the parietal bones of the head. Müller has gone into the subject very fully, and traced the changes which occur in the temporary vascular canals of ossifying cartilage. He agrees with Sharpey in saying that bone-corpuscles are not calcified cartilage-cells. He believes, however, that they are formed out of cells which are the descendants of the original cartilage-corpuscles. The paper concludes with some remarks on the condition of the bones in rickets.

HUXLEY's observations on the development of some parts of the skeleton of fishes were chiefly made upon the stickleback (*Gasterosteus leiurus*). He first speaks of the development of the tail—giving a full account of the literature of the subject—and then that of the palato-pterygoid arc, and hyomandibular suspensorium. In speaking of the homologies of the bones of the fish's face,

Huxley says, that in it, "Cuvier's palatine is the homologue of the palatine of the abbranchiate *vertebrata*, and his pterygoid is the homologue of their pterygoid, and that his jugal is their quadratum or incus." Huxley cannot, however, find any homologue of the temporal and symplectic. They appear to be specially piscine elements, only traceable as far as the amphibia, where they are represented by that part of the suspensorial cartilage, to which the hyoid arch is attached, and by the "temporal" of Cuvier. In the abbranchiate *vertebrata*, if the hyoid is connected with the skull, its insertion is quite distinct from that of the mandibular arch. Huxley believes, therefore, that the branchiate *vertebrata*, the oviparous abbranchiate *vertebrata*, and the *mammalia*, present a series of well-marked gradations in the mode in which the ramus of the mandible is attached to the skull. In the fish it is separated by the os articulare, the quadratum, and the temporo-symplectic. In the amphibia the latter becomes less distinct. In the abbranchiate *ovipara* it disappears; and finally, in the *mammalia*, the ramus comes into direct contact with the squamosal element of the skull.

RAINEY studied the mode of formation of bone, of shells, of starch-corpuscles, and several other organic structures. He has, in the first place, pointed out a process by which carbonate of lime can be made to assume a globular form, and says that it is produced by "molecular coalescence." In the second place, he gives an explanation of the probable cause of crystallization. Thirdly, he has discovered a process of "molecular disintegration" of the globules of carbonate of lime;—by inverting the mechanical conditions upon which their previous globular form had depended. And lastly, he deduces from his observations, that the rounded forms of organized bodies do not depend upon vital causes, but on purely physical agencies.

WEBB, in his examination of a loose cartilage; found on the surface a condensed layer of fibrous tissue; further in, there was an arrangement of cells in a matrix, somewhat resembling what is seen in ossifying cartilage. Some of the cells contained opaque granular matter, and were so attached together by their margins as to give the appearance of short tubules. In the centre was a quantity of cretaceous matter, soluble in hydrochloric acid.

It has been generally supposed that articular cartilage receives its nutriment from the vessels of the synovial membrane; but BARWELL thinks—1. That although in the articular cartilage itself there are

no vessels, yet there is situated immediately within the articular lamella¹ a set of arteries destined to supply the cartilage with nutriment. 2. That the articular lamella is composed of a finely tubular structure, which allows the nutrient fluid to find its way to the cartilage in minutely divided streams. 3. That the cartilage has no other source of nutriment.

FREUND looks upon the granular condition of the matrix, in the cartilages of the ribs, as being due to the presence of a quantity of fine fat-globules. They can be removed by ether, which circumstance he thinks establishes the correctness of his view.

ÆBY describes the development of cartilage in the fœtus, and its ossification in later life. His description of the development and increase of the cartilage-corpuscles is clearly given; but does not differ materially from that of other writers. In the process of ossification of the symphysis pubis cartilage, the cells appear to diminish in number, while the matrix increases in quantity. The corpuscles themselves somewhat change their appearance; they become granular, and contain fat-globules, as is well seen in rib-cartilage.

The researches of MAGITOT and GUILLOT can scarcely be said to have furnished us with any new facts regarding the development of the teeth. Magitot says that the enamel is composed of ossified cells, and agrees with Tomes as to the artificial nature of its supposed membrane. Guillot thinks that the teeth are developed out of a blastema similar to that which forms the matrix of bone.

MUSCULAR SYSTEM.

Radcliffe.—On Muscular Action from an electrical point of view. *Proc. Roy. Soc.*, No. 34, p. 690.

Ellis.—Researches into the nature of the Involuntary Muscular Tissue of the Human Bladder. *Transactions of the Roy. Soc.*, 1859, pp. 469—477, plates xxvi and xxvii.

Budge.—Sur la croissance des muscles. [On the Growth of Muscles.] (*Compt. Rend.*, Oct., 1858, pp. 587—589.)

¹ Toynbee calls the layer of bone separating the cancelli of the ossified epiphysal cartilage from the true articular cartilage, the "articular lamella."

- Meissner.**—Ueber das Verhalten der muskulösen Faserzellen im contrahirten Zustande. [On the Involuntary Muscular Fibres during Contraction.] (Henle u. Pf.'s Zeitschr., vol. ii, pp. 521—530.)
- Valentin.**—Die Wirkung der Zusammengezogenen Muskeln auf die Atmosphäre. [The Action of Contracted Muscles on the Atmosphere.] (Archiv f. physiol. Heilk., 1857, pp. 285—366. Canst., vol. 1, p. 85.)
- Arnold.**—Ueber die Irritabilität des Herzens und Gliedmuskeln. [On the Irritability of the Heart and other Muscles.] (Die Physiol. Anstalt von Heidelberg, pp. 98—104.)
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- Fechner.**—Ueber der Muskelübung. [On Muscular Exercise.] (Verhand. Sachs. Ges. Leipzig, 1858, pp. 113—120. Canst., vol. 1, p. 85.)
- Thouvenin.**—Influence de l'exercice musculaire sur la constitution. [The Influence of Muscular Exercise on the Constitution.] *Paris*, 1858. (Known already. —Valentin.)
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- Beraud.**—Du mode de terminaison des fibres longitudinales du rectum. [On the Termination of the Longitudinal Fibres of the Rectum.] (Compt. Rend. de la Soc. Biol., 1857.)
- Luschka.**—Ueber den Vordern innern Theil des Afterhebers (levator ani) beim Mann. [On the Male Levator Ani.] H. u. Pf.'s Zeitschr., Bd. iv, Heft 1, 2, 1858. Schmidt, 101, No. 1, p. 27.
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- Hyrtl.**—Ueber den Musculus sternoclavicularis. [On the Sterno-clavicularis Muscle.] Sitz. Ber. d. k. k. Akad. zu Wien; Math.-phys. Kl., Bd. xxix, p. 265. Schmidt, vol. 101, No. 1, p. 29.
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- Berlin.**—Ueber die quergestreifte Muskelfaser. [On Striated Muscular Fibres.] Archiv, Holland. *Utrecht*, 1858. Vol. 1, p. 417. Canstatt, vol. 1, p. 234.
- Budge.**—Ueber Struktur und Wachsthum der Muskelfasern. [On the Structure and Development of Muscular Fibres.] Wunder's Archiv, 1858, p. 71. Canstatt, p. 234.
- Bottcher.**—Ueber Ernährung und Zerfall der Muskelfasern. [On the Nutrition and Decay of Muscular Fibres.] Virchow's Archiv, vol. iii, p. 227, plate v, figs. 1—4.

RADCLIFFE begins by observing that the signs of electrical action in living muscle die out, *pari passu*, with the signs of irritability; and, as with these latter signs, *their last trace disappears before the occurrence of rigor mortis*. He adds, that it seems that there is a close agreement between ordinary muscular contraction and *rigor mortis*, for in ordinary muscular contraction, as Professor Du Bois Reymond has shown, there is a partial disappearance of electrical action. If the muscular current be present, *rigor mortis* is absent. So it would appear that the state of muscular contraction is antagonized by the muscular current. The author says such a view is supported, 1st, by the fact recently discovered by Eckhard, viz., that the state of tetanus is put an end to by the passage of a constant galvanic current through the tetanized parts; 2d, by the investigations of Harley on the *modus operandi* of strychnia, which prove that this poison acts by making the blood less able to appropriate oxygen, and by impairing the irritability of the muscles. Radcliffe finds, also, that strychnia exercises a directly depressing influence upon the nervous and muscular currents. He concludes by saying, that according to the results obtained from his own, as well as other observers' experiments, it appears that muscular contraction is produced, *not* by the stimulation of any vital property of contractility belonging to muscle, but by the simple cessation of the action of certain agents—electricity, nervous influence, and others—which had previously kept the muscle in a state of relaxation or expansion.

ELLIS says, that the involuntary muscular tissue of the bladder and the voluntary muscle in other parts of the human body, have a like composition, and that Professor Kölliker's view, that involuntary or smooth muscle is in all cases made up of fusiform cells, is incorrect. For the muscular substance of the bladder is composed of lengthened fibres with fixed and tendinous terminal attachments. The fasciculi of muscular fibres in the bladder are interwoven into a network, and are marked at varying intervals by tendinous intersections, like those of the rectus abdominis on a small scale.

The author terms what are usually called the "nuclei" of the muscular tissue—"corpuscles," and distinguishes two varieties of them, the oval and the fusiform. The latter are the more numerous, and are the rod-like nuclei of Kölliker. Two or even three of these may be observed in the length of a single fibre. If a single muscular

fibre of the bladder be isolated, it will be found to terminate as in voluntary muscle; connective tissue investing not only the fibre, but each of the separate portions into which it ultimately divides. The author considers that the "sarcous elements" of voluntary muscle are represented by the lines of dots visible in the muscular fibres of the bladder.

BUDGE counted the muscular fibres in the gastrocnemius of the frog, and found that their number increased as the animal grew; he could not, however, find how the increase took place.

MEISSNER says that the non-striated muscles, when in a state of contraction, have striæ upon them; he noticed this in fibres from the bladder of the cat and rabbit, and the spleen of the dog and sheep. VALENTIN found that during active contraction the muscles absorb oxygen, and give out carbonic acid gas. And ARNOLD observed that the heart of a frog, whether cut out or left in the body, beat slower and less forcibly in proportion as the surrounding air became rarified. If chloride of lime be placed along with the heart under the air-pump, the pulsations cease altogether as soon as the organ has lost 15 per cent. of its water. Mechanical and electrical stimuli can still, however, induce the heart to contract. Muscles, under the air-pump, gave out a very considerable amount of carbonic acid. Arnold says that the want of oxygen, and of water is the cause of the cessation of the muscular contractions.

CALLIBURCES made some experiments on the influence of heat on the peristaltic movements of the intestines, ureters, bladder, and pregnant uterus of animals. He found that a moderate warmth greatly increases the force and number of the peristaltic contractions. In the separated uterus of a bitch the contractions induced by gentle heat are powerful enough to expel a foetus.

KUPFFER calls attention to the fact that tendinous attachments limit the effect of nerve stimuli on muscles. Thus, in the rectus abdominis a stimulus applied to a nerve supplying one part of the muscle will not cause contraction in another. FECHNER experimented upon himself in order to ascertain what increase of muscular power exercise induces. He used dumb-bells during two hours after breakfast for two months; in which period his strength so increased, that instead of 104 he was able to make 692 movements before feeling fatigued. WUNDT's researches were made upon the elasticity of the animal tissues in general; he found that the tendon of a calf has

1669·3, the nerve of the same animal 1090·5, the artery 72·6, and the muscle of the ox 273·4, as “elastic-coefficients.”

SCHIFF says, that, in animals poisoned with sulpho-cyanide of potassium, the muscles cease to be affected by stimuli, either directly or indirectly, through the nerves. The injection of healthy blood into the vessels of the limb, however, restores both the nervous and muscular functions—the latter soonest.

HENLE's manual on the muscles contains 159 partially coloured woodcuts printed in the text. The fascia, bones, and ligaments occupy another volume, previously published.

BERAUD says that the part of the rectum, uncovered by peritoneum, has three layers of longitudinal muscular fibres. A superficial, middle, and deep. The first can be again divided into three portions; an anterior, lateral, and posterior. The anterior leaves the rectum, and attaches itself to the prostate; he names it mus. recto-prostaticus. The lateral pass into the levator ani. The posterior leaves the rectum and attaches itself to the sacrum, close to the insertion of the levator ani.

According to LUSCHKA, the levator ani resembles the buccinator, and not, as is generally thought, the mylohyoid. He divides it into three portions. 1. *Pars rectalis*, or that part of the muscle which terminates around and behind the rectum. 2. *Pars prostatica*, in front of the rectum; or, in other words, the portion usually named adductor s. levator s. compressor prostatae. And 3. *Pars urethralis*, further forwards, and not in contact with the rectum, but closely surrounding the pars membranacea urethrae. The origin of the female levator ani is the same as in the male. The posterior portion, or *pars rectalis*, needs no separate description. The middle portion is much weaker than in man, and is reduced to a narrow convex band of fibres, with the concavity looking forwards. The centre of the anterior portion is absent; its posterior edge is gradually lost in the transversus perinaei profundus, and its anterior edge on the walls of the urethra.

In his paper on the *Transversus Colli*, LUSCHKA says, that this unusual muscle arises from the inner surface of the cartilage of the first rib, passes behind the origin of the sternohyoid, between this and the sternothyroid, then spreads itself out into fine bands of fibres, which meet in the middle line with those from the opposite side. Some of the fibres end in the interclavicular ligament. The muscle is occasionally present on one side only.

In 1856, LUSCHKA described a small muscle under the name of *mus. sternoclavicularis*. Since then Hyrtl has looked for it in eighty-three bodies, and found it in six. Four times it exactly agreed with Luschka's description, twice differed slightly from it.

BRUECKE examined muscular fibrillæ with polarized light, and distinguishes two substances in them—one "isotrope," and the other "anisotrope." MUNK says that the fibrillæ consist of a homogeneous matrix, in which is a row of shining balls, the whole being surrounded by a structureless, transparent, elastic tube—sarcolemma. BÖTTCHER has specially directed his attention to the nuclei in the sarcolemma, and concludes that they are corpuscles of connective tissue, and connected together by a system of fine canals, as in tendon.

RIGOR MORTIS.

Heincke, Budge.—Ueber die Irritabilität der Muskeln und deren Zusammenhang mit der Todtenstarre. [On the Irritability of Muscles, and its relation to Rigor Mortis.] (*Deutsche Klinik*, No. 3, 1858, pp. 420—422.)

Brown-Sequard.—Sur la rigidité cadavérique. [On Rigor Mortis.] (*Journ. de Physiol.*, vol. i, 1858, pp. 281-3.)

Kuhne.—Ueber die Entstehung der Todtenstarre. [On the Development of Rigor Mortis.] (*Allgem. med. Centralzeit.*, No. 70, 1858, pp. 553, 554.)

Fischer.—De natura causisque rigoris mortis. [On the Nature and Cause of Rigor Mortis.] *Berlin*, 1857. (Already known.)

Kussmaul.—Ueber die Ertödtung der Gliedmassen. [On the Death of the Limbs.] (*Virchow's Archiv*, 1858, pp. 289—323.)

HEINCKE having cut the sciatic nerve in two rabbits, and in thirty-six hours afterwards killed them with strychnia, found that the muscles of the sound limb entered into a state of rigor mortis sooner than those in the limb with the nerves cut. The irritability was also soonest lost in the sound limb. The same results were obtained on rabbits killed by strangulation. When the muscles of a limb were killed by electricity the rigor mortis came on more rapidly. Brown-Séquard relates some experiments on the return of rigor mortis after it has been removed by forcible extension and flexion of the limb. He killed a healthy dog by ligaturing the trachea at 8 o'clock; at 11 rigor mortis began, and

at 12½ it was complete. One of the limbs was now moved backwards and forwards till it became flaccid. In from two to five minutes the rigor mortis returned. The same experiment, with a similar result, was performed at 1 o'clock. At 3 o'clock the result was less satisfactory. In twenty hours the rigor mortis did not reappear after being removed by forcible means. KUHNE examined the expressed juice of muscles in order to ascertain the cause of rigor mortis. The fresh juice coagulated in fifteen minutes, and, after a time, had an acid reaction, like muscles when they are in a state of rigor mortis, or beginning to putrefy.

KUSSMAUL found that the injection of a few drops of chloroform into an artery caused permanent rigor in the muscles supplied by it. He thinks it acts by causing coagulation of the muscular fibrin. A muscle in this condition of rigor is more easily torn across than a healthy one. The injection of healthy blood does not restore the muscular irritability after chloroform. Ether and other stimulants act in a somewhat similar manner.

VASCULAR SYSTEM.

Waters.—On the Intimate Structure and the Distribution of the Blood-vessels of the Human Lung. (Proc. Royal Soc., No. 35, p. 16. Med. Times and Gaz., July 16th, p. 71.)

Savory.—On the Shape of Transverse Wounds of Blood-vessels in relation to their Physiology. (Lancet, vol. 1, 1859, p. 311.)

Scott.—On the effects of Rupture of the Internal and Middle Coats of the Arteries. (British and Foreign Med.-Chir. Rev., July, 1859, pp. 211—227.)

Lister.—On the Coagulation of Blood. (Edin. Monthly Med. Journ., Dec., 1859, pp. 536—540.)

D'Espine.—De la fissure sternale congénitale de M. Groux. [On the Sternal Fissure in M. Groux.] *Neufchâtel*, 1857. (Canstatt, vol. i, p. 47.) The following are taken from the same source.

Ruhle.—Ueber M. Groux. (Jahresh. d. Schles. Ges. f. Vaterl. Cult., 1857, p. 146.)

Pippinskold.—Studier i Krets loppets. [Researches on the Circulation.] 8vo. *Helsingfors*, 1857-8. (No abstract.)

Gabriac.—Quelques Expériences relatives au choc du cœur. [Experiments on the Impulse of the Heart.] *Paris*, 1857.

Chevenin-Conqueret.—Du choc du cœur. [On the Impulse of the Heart.] 4to. *Paris*, 1857.

Colin.—De la détermination expérimentale de la force du cœur. [On the Force of the Heart.] (Gaz. Méd. de Paris, August, pp. 493—495. Gaz. Heb., August, p. 32.)

- Luschka.**—Die fibrösen Bänder des Herzbeutels. [The Ligaments of the Pericardium.] (H. u. Pf.'s Zeitschr., vol. iv, parts 1 and 2. No abstract.)
- Marey.**—Recherches sur la circulation du sang. [On the Circulation of the Blood.] (Gaz. Méd., No. 12, pp. 171—173, 1858.)
- Marey.**—Recherches hydrauliques sur la circulation du sang. [Hydraulic Experiments on the Circulation of the Blood.] (Annal. des Sciences Nat., 1857, vol. viii, p. 329. Compt. Rend., 10th March, 1856, p. 483, April, p. 680. Gaz. Méd., July, 1857, p. 416, Oct., p. 620.)
- Marey.**—Interprétation hydraulique du Pouls dicrote. [Hydraulic Interpretation of the Double-pulse.] (Compt. Rend., Nov., 1858, p. 826.)
- Rudinger.**—Ueber die Mechanik der Herzklappen. [On the Mechanism of the Cardiac Valves.] (Froriep's neue Notiz., vol. ii, 1858, pp. 25—27. No abstract.)
- Vulpian.**—Recherches sur la durée de la contractilité du cœur après la mort. [On the duration of the Heart's Action after Death.] (Gaz. Méd. de Paris, 1858, pp. 479—482.)
- Redtenbacher.**—Zur Kritik des Hæmadynamometers. [Some Critical Remarks on the Hæmadynamometer.] (Archiv f. Physiol. Heilk., 1858, pp. 135, 136.)
- Moilin.**—De la pression du sang. [On the Pressure of the Blood.] 4to. *Paris*, 1858. (No abstract.)
- Verneuil.**—De la suspension du Pouls radial dans l'extension forcée du bras. [On the Stoppage of the Radial Pulse during forcible extension of the Arm.] (Journ. de Physiol., 1858, pp. 506—512.)
- Guertin.**—De la fréquence du Pouls de l'état physiologique. [On the Normal Rapidity of the Pulse.] 4to. *Paris*, 1858. (Mostly all already known.—Valentin.)
- Brown-Sequard.**—Notes sur l'Association des efforts inspiratoire avec une diminution ou l'arrêt des mouvements du cœur. [On the Diminution or Suspension of the Heart's Action during forced Inspiration.] (Journal de Physiol., 1858, pp. 512—518.)
- Fleury.**—Des effets produits sur la circulation par l'application prolongée de l'eau froide à la surface du corps de l'homme. [The effect of the Cold Douche on the Circulation.] (Journ. de Physiol., 1858, p. 398.)
- Vulpian.**—Expériences sur la contractilité des vaisseaux. [On the Contractility of the Blood-vessels.] (Gaz. Méd. de Paris, May, 1858, p. 318.)
- Vulpian.**—Sur les effets des excitations produites directement sur le foie et les reins. [On the effect of Stimuli directly applied to the Liver and Kidneys.] (Ib., p. 302.)
- Gunning.**—Ueber die Ursache der Blutbewegung. [On the Cause of the Movement of the Blood.] (Froriep's neue Notizen, No. 2, pp. 20—24.)
- Botkin.**—Ueber die Wirkung der Salze auf die circulirenden rothen Blutkörperchen. [On the Action of Salts on Living Blood-corpuscles.] (Virchow's Archiv für path. Anat., 1858, vol. xv, p. 173.)
- Busch.**—Ueber retrograde Blutbewegung in den grossen, dem Herzen naheliegenden venen. [On the Retrograde Movement of the Blood in the Large Veins near to the Heart.] (Verh. des Preuss. naturhistor. Vereins, vol. xiv, 1857, pp. 95, 96.)
- Bezold.**—Zur Physiologie der Herzbewegungen. [On the Physiology of the Heart's Action.] (Virchow's Archiv für path. Anatomie, vol. xiv, 1858, pp. 280—309.)

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- Eckhard.**—Ein Beitrag zur Theorie der Ursachen der Herzbewegung. [On the Heart's Action.] (Dessen Beiträge zur Anatomie und Physiologie. Part 2. 4to. *Giessen*, 1858, pp. 145—156.)
- Pflüger.**—Zur Theorie der Hemmungsnerven. [On the Influence of the Vagi on the Heart's Action.] (Arch. f. Anat. u. Physiol., 1859, p. 13.)
- Heidenhain.**—Zur Physiologie des Blutes. [On the Physiology of the Blood.] (Wunderlich's Archiv, 1850(?), part iv, pp. 507—543.)
- Welcker.**—Bestimmung der Menge des Körper blutes. [Estimation of the number of Blood-corpuscles.] (Henle und Pf.'s Zeitschr., 1858, vol. iv, pp. 145—167.)
- Hecht.**—Des causes et des symptoms de la coagulation du sang. [On the Coagulation of the Blood.] *Strasbourg*, 1857. (A compilation of known facts.—Valentin.)
- Heusner.**—De Sanguinis Analysi Chemica. [Chemical Analysis of the Blood.] *Berlin*, 1857. (Already known.)
- Brown-Sequard.**—Recherches expérimentales sur le sang. [Experiments on the Blood.] (Journ. de Physiol., vol. i, pp. 95—122, pp. 353—362.) Notes sur les modifications que subissent les globules circulaire du sang des mammifères injecté dans le système circulatoire des Oiseaux. [Blood of Birds injected into Animals, &c.] (Journ. de Physiol., vol. i, pp. 173—175.)
- Brachet.**—Sur la couleur du sang. [On the Colour of the Blood.] (Compt. Rend., Feb., 1858, p. 393.) An historical reclamation. (Valentin.)
- Chevreul.**—Observations sur la couleur du sang de Chèvre exposé au contact des gaz atmospherique, &c. [On the Action of Gases on the Colour of Goat's Blood.] (Gaz. Hebdom., No. 39, 1858, p. 393.)
- His.**—Sur les relations qui existent entre le sang et l'ozone. [The Relations of Ozone and Blood.] (Journ. de Physiol., vol. i, pp. 634—641.)
- Schonbein.**—Ueber die Gleichheit des Einflusses, welchen in gewissen Fällen die Blutkörperchen und Eisenoxydulsalze auf die chemische Thätigkeit des gebundenen Sauerstoffes ausüben. [On the Influence of the Red Blood-corpuscles on Ozone.] (Verhand. der Nat. Gesel. in Basel, vol. ii, part 1, pp. 9—15, 1858.)
- Fixsen.**—De lingue ranæ textura disquisitiones microscopicae. [On the Frog's Tongue.] *Dorpatie*, 1857.
- Hyrthl.**—Die Rami perforantes der Art. meningea media. [On the Perforating Branches of the Middle Meningeal Artery.] Oesterr. Ztschr. f. prakt. Heilk., v, p. 9, 1859. Schmidt, vol. 102, p. 284.
- Hyrthl.**—Vermehrung der primitiven Aortenäste. [On an Abnormal number of Aortic branches.] Oester. Ztschr. f. prakt. Heilk., v, 11, 1859. Schmidt, vol. 103, p. 295.
- Fischer.**—Verlauf des Art. Subclavia in einem Falle von deutlich entwickelten Halsrippen. [On an Abnormal Distribution of the Subclavian Artery.] Wiener Wochenschr., No. 30, 1858. Canstatt, vol. i, p. 23.
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- Wallmann.**—Ueber das Offenbleiben des Foramen ovale cordis bei Erwachsenen. [On the Patent Foramen Ovale in the Adult.] Prag Vjhrschr., lxii, p. 21, 1859. Schmidt, vol. 103, p. 296.

Dusch.—Ueber Kommunikationen Zwischen den Herzventrikeln. [On a Communication between the Ventricles.] Verh. d. naturh.-med. Ver. zu Heidelberg, vi, p. 185. Schmidt, vol. 103, p. 297.

Hamernik.—Das Herz und seine Bewegung. *Prag*, 1858. [A contribution to the anatomy, physiology, and pathology of the Heart.]

Harting.—Note sur les corpuscules sanguins du *Cryptobranchus japonicus*. Verslagen en Mededeelingen der koninklijke Akademie van Wetenschappen. Afd. Natuurkunde. [On the Blood-corpuscles of the *Cryptobranchus Japonicus*.] Zevende Deel. 1858. *Amsterd.*, 1258. pp. 368. *Canst.*, vol. 1, p. 213.

Buchner und Simon.—Untersuchungen über Hämkristalle und ihre gerichtlich medicinische Bedeutung. [On Blood Crystals.] *Virchow's Archiv*, vol. xv, p. 50. *Canst.*, vol. 1, p. 213.

Pollock.—On Granulated Blood-discs. *Microscop. Journ.*, Oct., 1859, p. 4.

WATERS begins by saying that the bronchial tubes terminate in a dilatation, into which the air-sacs of the lung open. Six to twelve air-sacs, with their vessels, &c., connected with a terminal bronchial twig, constitute a lobulette. The air-sacs are somewhat elongated, and separated from each other by thin walls, without any *lateral* openings, covered by a number of small, shallow, cup-like depressions—eight to twenty.

Blood-vessels.—Those of one lobulette do not anastomose with those of another. The radicles of the pulmonary veins issue from the periphera of the lobulettes, collect into larger vessels, and then running in the interlobular spaces, proceed to the root of the lung.

SAVORY agrees with Liston, Miller, and others, that a longitudinal wound in an artery appears as a slit; an oblique becomes fusiform; a transverse circular. He further says that wounds assume the same shape in the dead as in the living artery, and therefore their shape is due to a physical property—elasticity. The elasticity is, however, greatly assisted in its effects by a natural state of tension, for when the artery is dissected out, even the gaping transverse wound becomes a mere slit. Wounds of veins assume similar shapes from the same causes. Their form is slightly modified, however, by the greater delicacy of their coats.

SCOTT experimented on animals, and the conclusions he came to were—1. When the internal and middle coats of a healthy artery in a dead animal are ruptured, either regularly all round the vessel, or irregularly at different places, there occurs, in by far the majority of cases, no inversion or coiling up of the cut edges of the tunics. 2. Rupture of the inner coats of the arteries of healthy *living* dogs is also, for the most part, unattended with any coiling up

of the edges of the divided inner coats. 3. Rupture of the intima and media of the arteries of living animals, whether in one line round the vessel, or in several circular lines closely apposed to each other, or irregularly at different parts of the interior of the artery, is not of itself sufficient to cause coagulation of the blood in, and consequent obstruction of, the vessel at the point of injury. 4. Inflammation of the arterial walls of such a degree as to cause great thickening of the same, is insufficient of itself to cause coagulation of the blood in, and consequent obstruction of, the artery at the point inflamed.

LISTER says that the ammonia theory is far from presenting a satisfactory explanation of the cause of the coagulation of the blood. For among other things he finds that blood, the ammonia in which has been neutralized by acetic acid, still remains fluid when kept in a cold vessel; and coagulates as soon as the temperature is slightly raised. Lister's experiments go in part to support Bruecke's statement regarding the power which the coats of the blood-vessels have in keeping the blood fluid.

D'ESPINE and RUHLE differ with regard to the nature of the pulsating tumour at the upper part of Groux's sternum. The former thinks that it is the ascending aorta, the latter the right auricle.

GABRIAC and CHEVENIN-CONQUERET say that the impulse of the heart against the thoracic walls is synchronous with the systole.

The force of the horse's heart, COLIN found to be equal to 236 lbs. It diminishes with the loss of blood, and when reduced to about one fifth the animal dies. MAREY believes that the action of the heart in propelling the blood is greatly assisted by the elasticity of the arterial coats. He says, too, that mechanical as well as chemical stimuli, cause contraction of the capillaries when they are weak, dilatation when they are strong.

VULPIAN finds that the heart after death is more sensible to mechanical than galvanic stimuli. He mentions an interesting fact, viz., that Rousseau, on opening the chest of a woman twenty-four hours after she was decapitated, found the heart still pulsating, and, what is more astonishing, he says it continued to pulsate during five hours.

REDTENBACHER points out the defect of measuring the force of the heart by means of an instrument containing mercury.

VERNEUIL says that the arrest of the radial pulse, when the arm is

forcibly extended, is on account of the aponeurotic termination of the biceps and brachialis internus compressing the humeral artery.

BROWN-SEQUARD tries to explain the reason of the heart's pulsations being reduced, or even arrested, during deep inspiration. If, he says, a rabbit, in its natural position, has the respirations at 90, and the pulse at 144 per minute; the pulse may be raised to 160, and the respirations reduced to 60, by bending its head backwards. If, on the other hand, the head is bent forwards on the breast, the respirations are reduced to 44, and the pulsations raised to 180 per minute. After the two vagi are divided in the neck, the bending of the head backwards alters but slightly the number of pulsations and respirations; but the bending it forwards reduces the number of respirations very considerably, although it merely raises the pulsations a few beats. This is another proof that the vagi have a powerful influence on the heart.

M. FLEURY claims the priority of investigating the effects produced by the prolonged application of cold water to the body. He does so in consequence of Dr. Bence Jones having published a paper on the same subject a short time ago.

VULPIAN tried to measure the contractility of the vessels of the liver and kidney—by the application of mechanical stimuli—immediately after death. He poisoned most of the animals (dogs and rabbits) with wourali, kept up artificial respiration, and then applied the point of a needle to the surface of the liver. After a second or two the tissue round where the needle was applied became injected with blood, which did not readily disappear on pressure. Galvanic did not act so well as mechanical stimuli. A similar effect was obtained with the kidney. At first the vessels dilated; then, after a time, contracted.

GUNNING calls attention to the fact that, on diminishing the watery part of the blood by means of salts and other substances, the circulation becomes much slower. BOTKIN thinks that this arises from the saline solutions causing a change in the form and elasticity of the blood-corpuscles, and thereby giving rise to greater friction in the vessels.

BUSCH strengthens Meckel's view regarding the possibility of substances in the blood passing backwards from the right auricle into the hepatic vein. He proved this experimentally, by injecting finely powdered charcoal (mixed with water) into the external jugular vein of a dog (?). The capillaries of the lungs became

blocked up, and the animal rapidly died. On post-mortem examination, the charcoal was found in the inferior vena cava; in one case as far down as the junction of the renal veins.

BEZOLD confirms the fact that a heart suspended by its vessels continues to pulsate longer than when laid on a flat surface. Also Stannius's observations on the effects of ligature of the organ. He noticed, that in frogs, when the auricle is suddenly separated from the ventricle, it ceases to pulsate; whereas the ventricle continues to do so. Division of the heart longitudinally does not prevent either the auricle or ventricle contracting, if the section be made during the diastole. Lastly, he confirmed Kölliker's statement regarding the effect of woorara in preventing the stoppage of the heart's action when galvanism is applied to the poisoned pneumogastric nerve.

WITTICH revives the theory regarding the influence of the cardiac ganglia on the rhythmical contractions of the heart. On making sections of the ventricles of frogs' hearts, he says, he always found that the portion to which the ganglia were attached continued to pulsate; but that the pulsations ceased immediately after the removal of the ganglia.

ECKHARD says that the spontaneously acting cardiac ganglia are not, as Bidder supposed, attached to the septum atriorum, nor those of reflex action situated in the atrio-ventricular margin. He confirms Stannius's statement regarding the repose of the heart after its division at the union of the venous sinus and right auricle. This happens even when many of the ganglia in the septum escape injury.

PFLUGER found that a *strong electric* current passed through the vagi did not stop the action of the heart; he therefore thinks that Schiff is wrong in saying that the pneumogastrics are the motor nerves of that organ.

HEIDENHAIN estimated the quantity of blood in different animals by Welcker's method, and found, that in the rabbit, on an average, the weight of the blood to that of the body is as 1 to 17; whereas in the dog it is as 1 to 13. In three dogs that had fasted—the first 6, the second 9, the third 14 days, he found the weight of the blood to that of the body as 1 to 13.5, 1 to 12.33, and 1 to 12.76. Almost the same proportions as in the healthy animal.

WELCKER, in his last paper, gives, as the result of his experiments, the subjoined table of the average quantity of blood in—

	Species examined.	The relative weight of the blood to that of the body.	
		RANGED BETWEEN	AVERAGE.
Fish	3	1 : 74'0 — 1 : 19'4	1 : 49'0
Amphibia	4	1 : 33'0 — 1 : 15'9	1 : 20'5
Amphibia (scaly)	4	1 : 20'4 — 1 : 15'4	1 : 17'2
Birds	4	1 : 13'1 — 1 : 10'9	1 : 21'1
Mammalia (man included)	8	1 : 18'1 — 1 : 12'0	1 : 14'7

Thus, it appears that fish have proportionally least blood; amphibia less than birds; and birds less than the mammalia. Young have proportionally more blood than old animals. The female, too, he found, has less blood than the male of the same species.

BROWN-SEQUARD says that the only difference between arterial and venous blood is in its containing more oxygen and less carbonic acid. The proof of this is, he says, that when venous is well shaken with air, and becomes red, it can, when injected into the vessels, equally well with arterial blood, restore to muscles their irritability, after they have been in the condition of rigor mortis. In a similar manner the sensibility of the nervous system can be restored. Brown-Séquard gives it as a general rule, that the irritability and sensibility of the tissues can be restored by the injection of blood longer after death, in large than in small animals. In the guinea-pig until the eighth, in the sheep until the tenth and a quarter, and in man until the twenty-seventh hour. When defibrinized blood is injected into the artery of an amputated limb, it is on its return by the vein found to contain fibrin. When the muscles are galvanized during the injection, the fibrin increases in quantity. Moreover, he thinks that the fibrin formed by the muscles is decomposed by the liver and kidneys.

When a quantity of the oval-corpuscle-blood of a bird is injected into the circulation of a dog, cat, or rabbit, it is found that in the course of an hour all the oval blood-cells disappear; whereas, if the examination be made only a quarter of an hour after the injection they are to be found in all parts of the circulation. On the other hand, if the small round blood-corpuscles of one of the mammalia (dog, cat) be injected into the circulation of a hen, the

round cells may be detected in the blood a month afterwards, though in greatly diminished quantity.

CHEVREUL observed that, when the venous and arterial blood of the goat is shaken with atmospheric air, oxygen, nitrogen, or carbonic acid gas, the effect is always the same. The venous blood thus produced, however, is in all cases a little browner than the arterial. He calls attention to several interesting facts regarding the relations between the blood and ozone. SCHÖNBEIN says, that fresh and healthy blood-corpuscles act upon ozonized turpentine in a similar way to the salts of the oxide of iron; and that this most probably arises from the circumstance of the blood-corpuscles containing a small quantity of that metal.

FIXSEN recommends the old method of studying the circulation of the blood on the frog's tongue.

HYRTL found by injecting the middle meningeal artery, that its perforating branches are not lost in the diploë of the skull; but that they pass through the bone, and assist in supplying the pericranium. Other branches perforate the sutures and supply the membranes lining the ear as well as the orbital cavity. The perforating branches going to the pericranium are not accompanied by veins.

A transposition of the right subclavian to the left side, Hyrtl thinks, occurs in about two per cent., and he, along with Dr. Oehl, of Pavia, inclines to regard this transposition as the cause of left-handedness. This view is combated by THEILE, who believes that there are more than two per cent. left-handed individuals, and that the transposition of the right subclavian does not occur oftener, if even so often.

In the case of a supernumerary pair of ribs arising from between the sixth and seventh cervical vertebræ, FISCHER found that the scalenus muscle consisted of two portions. The anterior of which arose from the trans. proc. of the fourth to the sixth cervical vertebræ, the posterior from that of the sixth and the neck of the supernumerary rib. The subclavian artery passed up over the dome of the pleura, between the two portions of the muscle, and from thence over the stretched end of an abnormal intercostal muscle, belonging to the supernumerary rib.

PANAS found in the body of a man, æt. 33, the aorta, which rose as usual, bend over the right bronchus to the right side of the vertebral column. From the arch rose only two, unusually thick, branches, the right subclavian and the right common

carotid. Opposite to the sixth dorsal vertebra there the aorta gave off a vessel about the size of a goose-quill, which passed up through the fifth intercostal space to the neck, and there showed a curious distribution. The œsophagus lay to the right side of the trachea.

WALLMANN says, among other things, that cases of open foramen ovale are more frequent among women than men. That the fossa ovalis is not unfrequently divided into two by a band of muscular fibres. (Otto, Breschet, and others.) That occasionally openings are found in the semilunar valves, &c., &c. DUSCH relates the case of a boy eleven years of age in whom a communication existed between the ventricles. He afterwards makes some general remarks upon this peculiar condition of the heart.

HARTING found that the red blood-corpuscles of the *Cryptobranchus Japonicus* measure 46·8 mm. long, 32·8 mm. broad. The nucleus 18·8 by 14 mm. The colourless corpuscles, on the other hand, measure 16·8 by 15·2 mm. The surface of the red blood-corpuscles in this animal is therefore twenty-nine times greater than the diameter of the blood-corpuscle of the human subject. They are the largest known.

BUCHNER and SIMON prepare blood-crystals by evaporating a few drops of blood, with an excess of strong acetic acid, to dryness in a watch-glass. Crystals may be obtained by this process even from dried blood removed from cloth, &c. The method may be employed in medico-legal investigations, as the only crystals likely to be confounded with those of hæmatin are crystals of murexid. The latter, however, differ from the former in being soluble in water, and dilute hydrochloric acid, and in giving with potash a blue instead of a dark-green solution. ('Canst.,' p. 214.)

POLLOCK sought for granular blood-discs in blood circulating in the living vessels—1st, in the web of the frog's foot; 2d, in the gills of the tadpole of the water-newt; and 3d, in the small arteries and veins in the mesentery of kittens and rabbits while the animals were under the influence of chloroform; but in all three cases with negative results. The cause of the corpuscles assuming a crenated appearance after the blood has been drawn from a vessel he cannot explain; but he says, that it is not on account of its exposure to the air.

Spirit of wine, when added to a drop of blood, causes all the corpuscles to disappear, and in their place is to be seen a large quantity of extremely minute particles, of no definite shape,—apparently the *débris* of the former discs.

NERVOUS SYSTEM.

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HANDFIELD JONES adopts Lister's views relative to the action of certain nerves in arresting or diminishing action. And from physiological as well as clinical data (many examples of which he brings forward), he believes that it may be regarded as a fundamental truth, that one and the same afferent nerve may, according as it is acting mildly or energetically, either exalt or depress the functions of the nervous centre upon which it acts. Upon this theory of inhibitory influence he explains the distant effect of many morbid states, as well as the action of counter-irritants and certain external stimulants.

SCHRÖEDER VAN DER KOLK's work forms the fourth volume of the New Sydenham Society's series. As stated by the translator in his preface, the chapters devoted to the consideration of the influence of the corpora olivaria in the articulation of words, and on the variety of lesions of speech which accompany morbid affections of different parts of the brain and medulla oblongata, are particularly worthy of attention. His remarks on the intermittent character of many convulsive and neuralgic attacks, which are yet dependent on persistent causes, are calculated to afford important aid in the establishment of the diagnosis in difficult cases, where the most regularly recurring fits of severe suffering, though truly intermittent, are nevertheless the result of organic disease. The histological part of the work is illustrated by plates.

BROWN-SEQUARD, in commencing his lectures in Dublin, stated that his object was to explain the origin of four kinds or groups of nerve-fibres, their course in the cord, and their place of decussation. (1.) What are usually termed conductors, he asserts, contain several species of nerve-fibres, conveying various sensitive impressions, such as tickling, pain, touch, muscular sense and direction, and temperature. Besides these there are still other species of nerve-conductors. (2.) The voluntary motor. (3.) The vaso-motor. (4.) The nutritive, concerning whose separate existence he is as yet dubious. That the phenomena of changes in secretion and nutrition are referable to nerve-influence can, however, be proved. Thus, by irritating the lingual, the salivary secretion is increased. This influence is distinct from the vaso-motor, as galvanism applied to the nerves of vessels diminishes both secretion and animal heat. He moreover says, that all sensory fibrils, except those conveying the sense of muscular contraction, pass into the posterior roots of the spinal nerves. That it is doubtful whether some of the excepted

form, pass into the anterior roots, thus occasioning an exception to the law of function in these nerves enunciated by Sir C. Bell. Hence, in some diseases and injuries in which the posterior roots have been destroyed, this variety of sensation has remained. After stating that the roots of the nerves can be traced into the gray substance of the cord, and that its posterior columns pass into the cerebellum, but not into the cerebrum, Brown-Séquard mentions that, after a transverse section of the posterior columns, in some animals, the sensibility is increased instead of being lost; hence these cannot be the only channels for conveying sensitive impressions to the brain. If, on the other hand, all the cord except the posterior column be divided, all sensation, as well as muscular motion, is lost.

The subject of the second lecture is paraplegia, two forms of which are precisely determined—the reflex and the direct. Brown-Séquard thinks a third may be added, which occurs whenever an irritation is so transmitted to the spinal marrow from an organ as to produce paralysis; example in wasting palsy, which Roberts says is preceded by neuralgic pains and visceral alterations.

Urinary paraplegia may be distinguished from that depending on inflammation of the cord by the paralysis of voluntary motion being complete, while the reflex power is augmented; it is further distinguished by the spine being tender on pressure at the seat of the disease. Hæmorrhage into the substance of the cord may be distinguished from hæmorrhage around it, by the sensibility gradually decreasing, and there being no convulsions. When the hæmorrhage is merely round the cord, and compresses the roots of the nerves, there are convulsions, as well as paralysis of voluntary motion. Paraplegia may arise from stricture of the urethra, enlargement of the prostate, and disease of the bladder or of the kidneys.

Séquard says the spinal cord may act either on the nerves going to the blood-vessels, or on those producing changes of nutrition. Thus, if one hand be dipped into a freezing mixture, the other hand, as first pointed out by Milne-Edwards, will become reduced in temperature; not, however, as he supposed, by a reduction of the general temperature of the body, but simply from its vessels becoming contracted through a reflex nervous influence.

The sixth and last lecture is chiefly devoted to the consideration of the subject of poisoning. In treating a case of poisoning, two things are, as Sir B. Brodie said, to be done—first, to apply

antidotes; and, secondly, to keep the patient alive until the poison is eliminated by the excretions. All the excretions ought, therefore, to be encouraged—sweating by heat, evacuation of the bowels by purgatives, and the removal of the urine by passage of the catheter.

BERNARD'S lectures on the nervous system fill two octavo volumes, of above five hundred pages each. In the first volume he considers the general property of the nerves and nerve-centres, reviews the various theories regarding reflex action, indicates the presence of reflex sensibility, and explains the electrical properties of the nerves, muscles, and skin. While speaking of the effects of a continuous galvanic current upon nerves, he says, that if the current be made to pass centrifugally (that is, by placing the positive pole next to the nerve-centre), the nerve will rapidly lose the property of being excited by the electricity. At first sight this might appear to arise from some disorganization of the nerve-elements. Such, however, is not the case; the property of the nerve is enfeebled, and exhausted, but not destroyed; for, on changing the direction of the current by merely reversing the position of the poles, in a very short time the stimulus applied to the nerve will call forth as energetic muscular contraction as before.

It has been long known, that when a feeble current is passed through a nerve, the muscular contraction which it induces might manifest itself in a variety of ways. At one time the contraction takes place when the current begins, at another time when it is arrested; and again, there occurs a contraction at both the opening and the closing of the galvanic circuit—none, however, during its continuance. Now, if the nerve be first exhausted, it will be found, that on applying to it a direct current (that is, from the centre to the circumference), contraction only occurs when the stimulus begins, not during its application or at the moment of its removal. Whereas, if the indirect current be applied (from the circumference to the centre), no contraction takes place except at the moment of its interruption. It has been still further observed, that these results vary when the stimulus is applied to different parts of the same nerve. Thus, it is found that, on applying the galvanism close to the divided end of the nerve, contraction occurs, as has just been said, at the moment of its application in the case of the direct, at the moment of its arrest in that of the indirect, current, while if the stimulus be applied near to the periphery of the

nerve, contraction occurs both at the opening and closing of the current.

Bernard says this is on account of the disorganization of the nerve beginning at the cerebral end, and it is only on the weakened nerve that the effects first spoken of are observed. When the pneumogastrics are galvanized, the pulsations of the heart stop, and this is followed frequently (in the dog) by the appearance of peristaltic movements in the intestine. Bernard thinks that this probably arises from the circulation being arrested. If the galvanism be applied to the upper end of the divided nerves, no action is produced upon the heart, but the respiratory movements are stopped through reflex action. And by the same means a change in the chemical composition of the blood and urine may be produced. Thus, galvanism applied to the pneumogastrics may bring on diabetes.

In his twenty-fourth lecture Bernard calls attention to the fact, that if the circulation in the liver be arrested by ligaturing its vessels, a stimulus applied to the nervous system fails to produce an excessive, or indeed any, production of sugar. On the other hand, whatever increases the circulation in the liver, as, for example, section of the sympathetic, is likely to produce artificial diabetes.

In the second volume there are some remarks on the influence of the cranial nerves on certain secretions, and a very complete *résumé* of all that is known regarding the influence exercised by the great sympathetic over the circulation, and temperature of different parts of the body, but more especially of the head. The author also points out the influence it exercises indirectly over secretion, and describes the manner in which operations may be performed upon the thoracic and abdominal portions, and the results thereby obtained.

COGHILL, in his lectures, describes in detail the nature of the ultimate structural relations subsisting between the nervous and other organic systems in the body. This involves a description of the various modes in which the distal extremities of the nerve-fibres terminate, of the modifications in form which they undergo, and the special structures which are found appended to their peripheral ends. He reviews all the recent researches that have been made in this field, and gives special attention to the observations of Continental physiologists, who have thrown much light on

the anatomical connexion of the nerves with the various tissues, glands, and other organs of the body. The author, in his introductory remarks, says, that he purposes to consider the peculiar nerve-structures in the organs of special sense, of which the retina forms the highest member. A peculiar differentiation prevails amongst them, corresponding to the nature of the stimuli which act upon them, and this he intends specially to consider.

SCHIFF'S treatise on the nervous system contains much original matter. While speaking of the degeneration of the peripheral part of a cut nerve, he says that the vascular supply has a very great influence upon it, as the following experiment shows: He exposed the sciatic nerve of a cat, drew the upper end out of the pelvis, and laid it in the bottom of the wound. On examining the central end three or four weeks afterwards, it was not found to have undergone any degeneration, whereas the lower portion of the same nerve had, in several parts, become changed in structure. Schiff says that wounds in the nerves of warm-blooded animals heal very rapidly, and if the nerve is cleanly cut through, reunion will take place in a few days. The power of sensation returns in those cases sooner than the power of motion, the difference in time being as eight to fifteen. If a sensory and a motory nerve be divided at the same time—example, the infra-orbital and the facial, or the lingual and hypoglossal—it will be found that the sensory unites and regains its function before the motory. Schiff could not satisfy himself as to the regeneration of ganglia.

In some favorable cases he succeeded in making sensory unite with motory fibres, but no physiological effect was thereby obtained. The difficulty experienced in causing motory to unite with sensory fibres shows that there must be an important difference in the constitution of the two kinds of nerves.

HEIDENHAIN describes and has employed a little hammer to excite nervous action. The instrument is so arranged as to give a series of gentle blows on the nerve. The effect thus produced is found to be similar to that of galvanism. Kölliker, in reply to Ordenstein, says that a nerve, after it has been dried and has lost its power of conducting a galvanic current, can be restored to life again,—by immersing it in water for a short time. BIRKNER estimated the quantity of water present in different nerves. He found in the sciatics of a decapitated woman aged thirty, from 68·2 to 72·5 per

cent. of water; in the crural nerves of one aged forty, from 63·6 to 64·0 per cent.; in the brachial of a rabbit, from 65 to 67, and in the sciatic of the same animal, from 68·1 to 69·2, per cent.

HARLESS says, that the sciatic of the frog, on an average, conducts electricity 14·86 times better than water. This he attributes to the chemical composition of the nerve. He confirms Kölliker's statement regarding the power of water in restoring the properties of nerves after they have been lost through the nerve becoming dry. The vapours of nitric and hydrochloric acids, he states, have the power of increasing for a time the sensibility of a nerve. PREISS believes that sensory nerves can conduct centrifugal as well as centripetal impressions.

The object of Althaus's communications to the 'Medical Times' is to prove that the muscles possess an inherent muscular irritability altogether independent of the nerves. The greater part of the papers is devoted to an historical review of the subject. He concludes by saying that Bernard's researches have been confirmed by Kölliker, who experimented both with woorara and conia, and that he (the author) has also obtained similar results, as the following experiment shows. If the crural artery and veins be tied in one limb, so that the circulation of the blood is stopped, and the animal poisoned, by inserting some woorara under its skin. When galvanism is applied in a short time afterwards to the motor nerves of the limb, no muscular action ensues; but if the galvanism be applied to the muscular substance itself, contractions are immediately induced. Finally, he mentions that the microscopic observations of Dr. Wundt are likewise in favour of an innate muscular irritability. He (Wundt) found that the muscular fibres are shortened when the poles of a galvanic battery are applied directly to the muscular tissue. This phenomenon is not, however, observed when the nerve is stimulated. Althaus thinks that inherent muscular irritability is proved by—1st. The microscopic observation of Bowman, showing a partial contraction of muscular fibres, which have been entirely insulated from every extraneous tissue. 2d. By the experiments of Bernard, Kölliker, and himself,¹ with woorara, which kills the motor nerves, and leaves the muscles intact. 3d. By the microscopic observations of

¹ The editor pointed out the same thing three years ago, ('Edin. Monthly Journal,' Feb., 1857, p. 711).

Wundt, showing the action of the closed continuous current upon the muscular fibre, when the electrodes are directly applied to the muscles, and no such action when the stimulus is conveyed to the muscles through the instrumentality of the nerves.

GRATIOLET treats of the relation of the outward form of the skull to that of the brain. The results of his observations, which extend over a great part of the animal kingdom, are quite opposed to phrenology.

ROUSSEAU, LESURE, and MAGRON state that, if two opposite currents be allowed to act upon different points of a nerve at the same time, only the peripheral part of the nerve will exert any influence upon the attached muscles. BERNARD calls attention to the difference between a constant and an interrupted current. During the former the leg of the frog remains still,—during the latter the muscles are seized with tetanic spasm.

PFLUGER says, that very weak, constant currents of electricity never induce tetanus—moderate currents call it into play, and strong currents arrest it. ROSENTHAL's experiments show that if a constant current be kept up for several minutes, at the moment of breaking the circuit tetanic spasm takes place. If the circuit be again closed in the same direction during the spasm, the tetanus ceases. On the other hand, if it be closed in the opposite direction, the spasm is increased. Then, again, if one waits till the spasm has passed, and then closes and reopens the circuit in the same direction, the tetanic spasm comes on just as strong as if it had been closed in the opposite direction.

JACUBOWITSCH has adopted Gerlach's method of imbibing sections of brain and spinal cord with carmine solution. He says that he can distinguish between sensory, motory, and sympathetic ganglion-cells in the spinal cord. The first are spindle-shaped, the second star-shaped, and the last round or oval. REMAK again raises the question regarding his right to be considered the discoverer of the peripheral ganglion. He says that as early as 1840, he discovered them in the digestive canal of man, and in 1843, in that of birds. GERLACH describes the nerve-fibres of the brain as terminating in cells and granular masses. As there are many more fibres than cells several of the former must terminate in one of the latter. KÖLLIKER says that he has been unable to make out the arrangement described by Gerlach.

BILLROTH revives the old views regarding the plexiform termi-

nations of nerves in the digestive canal. The finest fibres anastomose freely with each other and with granular nuclei.

GERLACH says that the tactile papillæ stand in physiological relationship with the nervous system, but he is unable to point out their histological position.

KRAUSE thinks that between the Paccinian bodies on the one hand, and the tactile papillæ on the other, there is a third way in which nerves terminate. And according to him, it is in small, round or oval corpuscles, to which he gives the name of flask-shaped terminal corpuscles. Luschka had already described these, six years ago, as occurring in the mammary glands. Keferstein thinks that what appears to be a central cavity in the Paccinian body, is in reality nucleated connective tissue.

OWSJANNIKOW says that Jacobowitsch's statement,—that the brain and spinal cord of animals poisoned with narcotics are so destroyed as to be unfit for histological purposes,—is untrue.

LISTER and TURNER employed the "imbibition method" (steeping the tissue to be examined in an ammoniacal solution of carmine) in their researches on the nerves, and found that sections of the sciatic so treated, when examined by reflected light, showed in the centre of each nerve-fibre a red spot, surrounded by a yellowish-white granular ring. The spot corresponded to the axis-cylinder, the ring to the medullary sheath. Chromic acid was found not to affect the axis-cylinder, but to render opaque and of a brown colour the medullary sheath; facts which confirm the ordinary opinion regarding the chemical difference existing between the different parts of a nerve-fibre.

ROLLESTON says that the corpus trapezoideum, contrary to what is usually supposed, exists in all animals, although it is sometimes apparently very small, in consequence of being overlaid by an excessively developed pons. He moreover describes in man a band of nervous substance, the lower end of which passes into the crura cerebri, near to the exit of the third nerves; the upper of which bifurcates, and sends one branch to the pillars of the valve of Vieussens, the other into the testis.

SCHULTZE describes the manner in which the acoustic nerve in the ear of the ray- and dog-fish terminates. He has traced the axis-cylinder of the nerve-fibres as far as the epithelium-layer of the crista acoustica. Schultze disagrees with Kölliker in his description and ideas of the so-called "Cortischen Organe." CURIE

confirms Schwann's statement regarding the nervus trochlearis giving off a motor branch to the lachrymal. He further says, that he found it give a branch to the nasal by which the lachrymal sac and duct are supplied; and lastly, that the lachrymal branch of the ophthalmic and of the superior maxillary do not always anastomose.

OEHL says the olfactory nerve (pigeons, hens, &c.) spreads itself out into a fine plexus under the nasal mucous membrane, and that the nerve-fibres ultimately end in club-shaped bodies (ganglion-cells?), lying immediately beneath the mucous epithelium. Further, he says that the yellow colour of the upper part of the nasal mucous membrane does not depend upon a deposit of pigment in the epithelium-cells, but upon a peculiar secretion of the mucous glands.

RUDINGER describes the distribution of the nerves in the ligaments, capsules, and synovial membranes of the joints. They are mostly all, he says, of the cerebro-spinal origin.

LUSCHKA makes an historical addition to Dr. Krause's work on the termination of nerves.

SCHIFF found that among small mammalia the reflex movement, after section of the cervical portion of the spinal cord, is strongest in the hedgehog. In eels and carp it is more marked than in mammalia, and in amphibia even more so. The salamander seems to feel pain after decapitation; but Schiff is still doubtful on the point. The posterior columns, he says, although alone sensitive, are not the only ones that conduct sensory impressions. It is rather the gray substance which conducts these. Longitudinal section of the spinal cord does not destroy the sensibility of the posterior columns. He denies that there is any crossing of the sensory fibres in the cord, and says that the gray substance can conduct motory as well as sensory impressions. There are no separate motory bundles in the cord which can, by a direct (not a reflex) stimulus, cause muscular movement.

BROWN-SEQUARD says that the functions of the brain, cord, and the motory and sensory nerves, are increased by oxygen and diminished by carbonic acid gas. Hyperæsthesia, he thinks, may be induced by the action of oxygen on the sensory nerves. Most of the facts stated in the other papers are familiar to our readers since their publication in the 'Lancet,' 1858. BEZOLD says, that—1st. Voluntary motion in amphibia, birds, and mammalia, is conducted *directly*

through the cord. 2d. The results of his experiments do not prove that there is any crossing of the sensory fibres in the cord, neither do they absolutely negative that opinion. 3d. In the spinal cords of birds and frogs he could not find any vaso-motory fibres.

VULPIAN disagrees with Schiff and Bezold, and adopts Brown-Séquard's views regarding the crossing of the sensory fibres in the cord. JEITTLER's paper is written with the view of showing the part Prochaska took in the discovery of reflex action.

BROWN-SEQUARD denies the existence of Flourens' so-called "vital point." He says, that when animals die suddenly after injury to the "vital point," it is on account of the action of the heart being arrested, in consequence of injury to the neighbouring parts of the cord. It does not occur when the vital point is excised. The arrest of the respiration he accounts for in a similar manner. FLOURENS replies to this, and cites experiments to prove that a vital point does exist.

RENZI thinks that the irregular movements which follow upon extirpation of the cerebellum arise from disordered hearing and sight, as in ordinary vertigo. LUSSANA's paper is on the cause of vertigo. He cites several experiments that he made on the effects of extirpation of different portions of the brain.

BULATOWICZ found that galvanism applied to the cardiac portion of the mucous coat of the stomach induces vomiting in the course of a few seconds, while its application to the fundus and pylorus only produces pain. If the animal be rendered insensible by the injection of opium into the jugular vein, vomiting cannot be induced. Section of both vagi is followed by a similar result. After finding that two and a half grains of tartar emetic introduced into a vein caused immediate and violent vomiting, he divided the vagi in another dog, and then made a similar injection. This time, however, neither vomiting nor efforts at vomiting were observed. He also noticed that section of both vagi is followed by paralysis of the lower part of the œsophagus, so that during the act of respiration food is frequently forced back through the cardiac orifice of the stomach. Lastly, he found that the stomach, during the efforts at vomiting, becomes passively filled with air.

LOWINSOHN, under BIDDER and KUPFFER, tested the effects of section of the vagi on the respiration. He says that the quantity of carbonic acid exhaled after the nerves are divided, at first

increases and then diminishes. He made some observations on the effects of galvanism on the cut vagi, but found nothing very new.

HEINEMANN cut the vagi and recurrent laryngeal nerves of frogs. Six lived 4 weeks after the operation, two lived 18, one 10, one 8, two 7, and one 6 days. BIERVLIET made some experiments on dogs, with the view of ascertaining the effects of the vagi on the sensation of hunger, but with unsatisfactory results. KUPFFER and LUDWIG's experiments, on the other hand, were made with the view of ascertaining the influence of the vagi on the movements of the digestive canal. They found that galvanism applied to the peripheral ends of the cut vagi induces peristaltic action in the intestines. Galvanism applied to the splanchnic nerves is followed by a similar result.

WAGNER's observations on the sympathetic were made upon a decapitated woman, æt. 28. He found that galvanism applied to the cervical sympathetic caused the eyelids to open, the pupil to enlarge, and the other results usually noticed on the lower animals.

LIEGEOIS found that, after tearing out the facial nerve, the movements of the cheek continue for an hour.

BUDGE concludes, from his experiments on rabbits, that ætherization does not diminish the sensibility of the cœliac or of the superior mesenteric ganglion to mechanical stimuli. Brown-Séquard thinks that galvanizing the splanchnic nerves causes an increase in the peristaltic movements of the intestine only when the current passes through a portion of the bowel as well as the nerve.

JASCHKOWITZ found that section of the nerves of the spleen, in dogs and cats, cause an increased flow of blood to the organ, and a copious deposit of hæmatin-pigment in its cells.

THE FIVE SENSES—SEEING, HEARING, TASTING, SMELLING, AND FEELING.

Herschel.—Remarks on Colour-Blindness. *Proc. Roy. Soc.*, No. 35, p. 72.

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- Dornbluth.**—Die Sinne des Menschen. [On the Senses.] *Leipzig*, 1858. (No abstract.)
- Dudtenhofer.**—Die acht Sinne des Menschen. *Nördlingen*, 1858. (Series of letters on the Senses for educated people.)
- Sturm.**—De organo auditus cum organo visus comparato. [The Auditory and Visual Organs.] *Vratislavia*, 1857. (A compilation.—Valentin.)
- Rau.**—Ueber die Sinnesorgane ueberhaupt und die Pflege des Auges insbesondere. *Bern.*, 1858. (A Lecture on the Organs of Sense, especially the Eye.—Valentin.)
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- Reute.**—Ein neues Ophthalmotrop. [A new Ophthalmoscope.] *Leipzig*, 1858. *Canstatt*, vol. i, p. 93.
- Creutz.**—Memorabilia de paralysibus apparatus oculomotorii. *Bonnæ*, 1857. (Confirmation of known facts on the paralysis of the muscles.—Valentin.)
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- Graefe.**—Klinische Analyse der Motilitätsstörung des Auges. [On the Paralysis of the Muscles of the Eyeball.] *Berlin*, 1858. *Canstatt*, p. 94.
- Petrinus.**—Nonnulla de Mydriaticis atque Mydriasi. *Leipzig*, 1857. (A careful compilation of known facts on Mydriasis.—Valentin.)
- Hansen.**—Kort Fremstilling af den i praktiske Oiemed Anvendelige Undersøgelse med Oienspeilet og af de ved denne Undersøgelse ind vundne Resultates. [Short treatise on the practical application of the Ophthalmoscope.] *Copenhagen*, 1857.
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- Melsens.**—Recherches sur la persistance des impressions de la rétine. [On the Persistence of Impressions on the Retina.] *Bullet. de l'Acad. de Bruxelles*, 1858, p. 738.
- Willigen.**—Eine Lichterscheinung im Auge. [On the Appearance of Light in the Eye.] *Pog. Annal.*, vol. 102, p. 175.
- Aubert.**—Ueber Accomodation des Auges. [On the Accommodation of the Eye.] (*Jahresbu.*, No. 35, der Schles. Ges. f. vaterland. Cultur. *Breslau*, 1858. pp. 147—149. Already known.—Valentin.)
- Bahr.**—De oculi accommodatione, experimenta nova. [On the Accommodation of the Eye.] *Berlin*, 1857.
- Levy.**—De musculi ciliaris in oculis mammalium structura et functionibus. [On the Ciliary Muscle.] *Berlin*, 1857.
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- Czermak.**—Ueber das Accomodationsphosphen. *Sitz.-Ber. der Wien. Akad.*, November, 1857, vol. xxvii, pp. 78—80.

- Manz.**—Anatomisch-physiologische Untersuchungen über die Accommodation des Fischeauges. [On the Accommodation of the Eyes of Fish.] 8vo. *Freiburg i. Breisg.*, 1858.
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- Seguin.**—Notes sur les couleurs accidentales. [On Accidental Colours.] *Compt. Rendus*, vol. xlvii, 1858, No. 5, August, pp. 158—200.
- Chevreul.**—Notes sur quelques expériences de contraste simultanée de couleur. [On the Contrasts of Colours.] The same, No. 5, Août, pp. 196—198. (Already known.—Valentin.)
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- Weicker.**—De nonnullis coloribus complementariis quales singulis hominibus apparent. [Some Remarks on the Complementary Colours.] 8vo. *Lipsiæ*, 1857. (Compilation.—Valentin.)
- Martini.**—Sur les effets produits sur la vision par la Santonine. [On the Effect of Santonine on the Vision.] *Gaz. Hebdom.*, 1858, No. 39, p. 593.
- Mialhe.**—Sur la Santonine. [On the Effect of Santonine on the Vision.] *Monit. des Hôpit.*, No. 109, p. 869.
- Volkmann.**—Ueber Irradiation. [On Irradiation.] *Bericht der Sachs. Gesellsch. d. Wissensch. zu Leipzig*, 1858, pp. 129—148.

HERSCHEL's remarks on colour-blindness originated in a report on Mr. Pole's paper. He says he considers Pole's communication exceedingly valuable, because it is a clear and consecutive account of the affection by one suffering from it, and who is in possession of a knowledge of all that has been written on the subject by others, and who, moreover, from general education and habits of mind, is in a position to discuss his own case scientifically. Pole refers all his perceptions of colour to three primary or elementary sensations, these may be red, blue, and yellow, as Mayer proposed, or red, green, and violet, as suggested by Dr. Young. It is as necessary to distinguish between our sensations of colour as it is to distinguish between bitterness, sweetness, sourness, &c. In looking at green Pole does not recognise the sensation either of blue or yellow, but something *sui generis*. Maxwell has lately announced his inability to form green by the combination of blue and yellow. The union on the retina of the yellowest yellow and the bluest blue, in such proportions that neither shall be in excess, so as to tinge the resulting light either yellow or blue, is *not green, but white*.

Herschel, from numerous facts, concludes—1st. That in no case can the sensation of green be produced by the joint action on the

eye of two lights, in neither of which, separately, prismatic green exists. 2dly. That the joint action of two lights, separately producing the most lively sensations of blue and yellow, does not give rise to that of green, *even when one of them contains in its composition the totality of green light in the spectrum*. And 3dly. That all our liveliest sensations of yellow are produced by the joint action of the rays, of which those separately exciting the ideas of red and green form a large majority; and that a decided yellow impression is produced by the union of these only. He further adds, that from these premises it would seem the easiest possible step to conclude the non-existence of yellow as a primary colour. But this conclusion he is unable to admit in the face of the facts—1st, that a yellow ray, incapable of prismatic analysis into green and red, may be shown to exist, both in the spectrum and in flames in which soda is present; and 2dly, that neither red nor green, as sensations, are in the remotest degree suggested by this yellow in its action on the eye. Whether under these circumstances the vision of normal-eyed persons should be termed trichromic or tetrachromic, seems an open question. That Mr. Pole's vision is dichromic, there can be no doubt.

WRIGHT thinks that the essential cause of shortsightedness is to be sought for in the iris, which in all cases is preternaturally contracted. Dilatation of the pupil by belladonna extends the field of vision, while contraction by opium shortens it. "The true cause of longsightedness consists in a preternatural dilatation of the pupil. . . . Contrary to the statement of most writers on the subject, the sight of the myopic improves as he advances in life," because the pupils become larger, in consequence of the circular fibres of the iris losing in a great measure their irritability.

JAGO calls, a methodical proceeding to show how ocular spectres, structures, and functions, are mutual exponents—Entopics. We find it impossible to give a condensed abstract of this article; but by quoting the first paragraph our readers will have the opportunity of forming some idea both of its style and contents. "Our visual organs," says the author, "are not only capable, by an adjusting lenticular system, of painting, under varying conditions, images of luminous objects upon a membrane in peculiar relation with the brain, but are furnished with or involve many adjuvant structures. Thus it happens that they reveal to us a number of adventitious phenomena—spectres as we call them—whether caused by light at the parts

that cover the cornea, or by any stimulus whatever affecting the special nervous tract. Besides the ordinary interest that we feel in tracing subjective illusions to their sources, the accurate elimination of these is a physiological necessity, if we would avoid the risk of ascribing effects begotten by subordinate to more integral portions of the apparatus, and thus forming wrong conceptions of the laws which regulate the conduct of the latter. Finally, a diligent study of these accidental appearances may be made serviceable for the solution of certain important points of ocular structure of too delicate a nature for the microscope or other usual means of investigation, as also for determining important questions of function."

HENKE proposes to divide the orbicularis palpebrarum into three muscles—orbic. orbitalis, lachrymalis anterior, and lachrymalis posterior. The lachrymalis anterior, acting upon the lachrymal duct, causes its enlargement, and thereby induces the entrance of the tears. The lachrymalis posterior, on the other hand, compresses the duct and forces the tears into the nasal cavity. BAHR thinks that the accommodation of the eye depends entirely on the change in the form of the lens. The adjustment, MANNHART says, is brought about by the ciliary muscle (alone) acting on the lens. LEVY gives a somewhat similar explanation of its action. While CZERMAK says that the adjustment of the eye for short distances most probably arises from an increase in the antero-posterior diameter of the crystalline lens. MANZ thinks that the eyes of fish are capable of adjustment, notwithstanding their possessing no ciliary muscle, and the iris being scarcely mobile. The adjustment may be induced, he imagines, by the action of the muscular fibres of the campanula on the lens.

LUBIMOFF made experiments on the apparent extent of objects, by looking at them through variously-sized openings made in slides, and SEGUIN on the extent of the post-impression with the closed eye. The latter looked at a red square on a black ground, and after projecting the given post-impression on a white screen, shut the eyes and walked backwards. He found that by so doing the picture appeared to become larger as he receded.

AUBERT and MELSSENS's communications contain remarks on the probable cause of post-impressions, and WILLIGEN's on the effects observed on looking through slits.

MARTINI states that for some hours after taking a dose of santo-

nine everything appears green. MIALHE and LEROY D'ETIOLES make a similar statement.

VOLKMANN, in relating some of his experiments on irradiation, says that there are cases in which black bands on a white ground appears broader, and not narrower. The apparent increase in the size of the black band taking place at the expense of the white ground.

The following titles of papers, bearing more or less on the question of STEREOSCOPIC EFFECTS, are taken from Valentin's 'Report.'

Claudet.—Le Stéréomonoscope. Nouvelle instrument, dont le principe est fondé sur la découverte de la propriété inhérente en verre depoli de présenter en relief l'image de la chambre obscure. [Description of a new kind of instrument.] 8vo. *Paris*, 1858.

D'Almeida.—Nouvelle appareil stéréoscopique. [A new Stereoscope.] *Compt. Rend.*, vol. xlvii, July, 1858, pp. 61—63.

Serre (d'Uzes).—Théorie explicative des phénomènes stéréoscopique. [The Theory of Stereoscopic Effects.] *Bullet. de l'Acad. de Méd. de Paris*, vol. xxvii, 1858, pp. 1116—1118.

Giraud-Teulon.—Mécanisme de la production du relief dans la vision binoculaire. [On the Theory of "Relief."—Continuation.] *Gaz. Méd.*, November, 1857, No. 47, pp. 730—734; No. 48, pp. 745—750.

Panum.—Physiologische Untersuchungen über das Sehen mit zwei Augen. [Researches on Binocular Vision.] 4to. *Kiel*, 1858.

Panum.—Ueber das Sehen mit zwei Augen. *Froriep's neue Notizen*, 1858, vol. iv, No. 9, pp. 131—134. (Extract from the preceding work.)

Helmholtz.—Telestereoscop. [On the Telestereoscope.] *Verhandl. des naturhistor. Vereins der preuss. Rheinlande*, 1857, vol. lxxiv. *Annales de Chimie*, troisième série, vol. lii, pp. 118—124.

Dove.—Ueber den Einfluss des Binocularsehens bei Beurtheilung der Entfernung durch Spiegelung und Brechung gesehener Gegenstände. [On the Influence of Binocular Vision in Calculating Distance.] *Monatsber d. Berliner Akad.*, May, 1858, pp. 312—315. *Poggendorf's Annalen*, vol. civ, 1858, pp. 325—330.

Claparede.—Sur une nouvelle détermination de l'horoptère. [On the determination of the Horopter.] *Compt. Rend.*, vol. xlvii, 1858, No. 14, Oct., p. 566.

Claparede.—Quelques mots sur la vision binoculaire et stéréoscopique et sur la question de l'horoptère. [A few remarks on the Stereoscope, &c.] *Bibliothèque universelle de Genève*, nouvelle période, vol. iii, 1858, Oct., pp. 138—168; Nov., pp. 225—267; Dec., pp. 362—369.

Graefe.—Ueber Störungen des gemeinschaftlichen Sehens. [On a derangement of Mutual Vision.] *Deutsche Klinik*, 1858, No. 8, pp. 82—84.

Graefe.—Ueber gemeinschaftliches Sehen. *Froriep's neue Notizen*, 1858, vol. iii, No. 18, pp. 281—288. (Extract from preceding work.)

HEARING.

Moorhead.—Contribution to the Physiology of Hearing. *Lancet*, 5th March, 1859, pp. 236 and 259.

- Toynbee.**—On the Mode in which Sonorous Undulations are conducted from the Membrana Tympani to the Labyrinth in the Human Ear. *Proc. Roy. Soc.*, No. 35, p. 32. *Lancet*, and *Med. Times and Gaz.*, 18th June, 1859.
- Earnshaw.**—On the Mathematical Theory of Sound. *Proc. Roy. Soc.*, No. 34, p. 590.
- Alison (Scott).**—On the Intensification of Sound. *Proc. Roy. Soc.*, No. 34, p. 649.
- Bonnafont.**—Mémoire sur les osselets de l'oreille et sur la membran du tympan. [On the Bones of the Ear and Membrana Tympani.] *Compt. Rend.*, vol. xlvii, 1858, Oct., pp. 614, 615; and more fully in the *l'Institut*, 1858, Oct., No. 1294, pp. 341, 342.
- Claudius.**—Physiologische Bemerkungen über das Gehörorgan der Cetaceen und das Labyrinth der Säugethiere. [Remarks on the Organ of Hearing in the Whale.] 8vo. *Kiel*, 1858. *Froriep's neue Notiz.*, 1858, vol. iii, pp. 225—232. *Canst.*, vol. i, p. 101.
- Bonnafont.**—Reflexions medico-psychologiques sur certaines conditions de sens de l'ouïe et de la vue. [On certain conditions of the Ear and Eye.] *Revue Méd. Française et Etrangère*, June, 1858, pp. 705—722.
- Burdach.**—Annotationes anatomico-physiologicæ de aure externa. [On the External Ear.] 4to. *Régiomonti*, 1857.

MOORHEAD thinks that the membrana tympani is normally thrown into vibration in a twofold manner—1st, by sonorous undulations reflected upon it from the walls of the meatus; 2d, by vibrations directly propagated to it from the external ear; and that these vibrations may be impeded by many causes, occasioned by an aperture in the membrane. Such as impaired elasticity of the membrane, diminished excursion of its vibrations, &c.

TOYNBEE'S conclusions are not unsimilar, for he says—1st. That the commonly received opinion in favour of the sonorous undulations passing through the chain of ossicles to the vestibule is correct. 2d. That the stapes, when disconnected from the incus, can still conduct sonorous undulations to the vestibule from the air. 3d. So far as our present experience extends, it appears that in the human ear sound always travels to the labyrinth through two media, viz., through the air in the tympanic cavity to the cochlea, and through one or more of the ossicles to the vestibule.

EARNSHAW says, that the principal feature of his communication is the discovery of an integral of a certain class of differential equations. This class includes the differential equation of motion when a disturbance is transmitted through a uniform elastic medium confined in a horizontal tube. He discusses wave-motion, when the temperature is supposed to be unaffected by the passage of a wave, and when the change of temperature is allowed for.

With respect to the velocity of sound, which has hitherto been found experimentally, to exceed the velocity obtained by theory, it is shown that the value obtained by approximative methods is the *minimum limit* of sound-velocity, so that the actual velocity will be always greater; the excess depending on the intensity and genesis of the sound. It is shown that all the parts of a wave do not travel at the same rate—a circumstance which leads to the formation of a bore in the front of a wave. Several previously unexplained phenomena, such as the double report of firearms heard at a great distance, the outrunning of one sound by another, observed by Capt. Parry, the comparative powers of different gases of transmitting sounds, and the laws of transmission of sound from one medium to another, are accounted for and directly deduced from the integral of the equation of wave-motion. The relation between pressure and velocity is shown to be that which is expressed by the equation—

$$p = p_{\sigma} \varepsilon \frac{v}{\sqrt{\mu}} ;$$

from which several new results are obtained.

SCOTT ALISON found that sounds which are faint when heard by a hearing-tube directly applied to solid sounding bodies, become augmented when water is interposed between these bodies and the distal extremity of the hearing-tube. He has been able to hear, by the employment of water, the sound of a solid body, such as a table, which, without this medium, has been inaudible. The result of augmentation is greatest when the hearing-tube is immersed freely in water. A piece of wood not thicker than a paper-cutter, when interposed between the water employed and the mouth of the hearing-tube, materially interferes with the augmenting power of the water. The hearing-tubes employed by Alison are various. Many of the experiments were performed with his differential stethophone, an instrument described in No. 31, of the 'Proc. Roy. Soc.' Tubes closed at their distal extremity with solid material, such as glass, do not answer so well as those closed with membrane. A water-bag increases the impression conveyed to the ear by the wooden stethoscope, if it be placed between the flat ear-piece and the external ear. The name of hydrophone has been given to it.

BONNAFONT says that he examined the drum of the ear with a speculum, and could never detect it vibrating, even when powerful

military music was being listened to. He noticed, however, that in these cases the blood-vessels became somewhat congested. CLAUDIUS made some original observations on the ear of the Cetacea, and came to the conclusion that the whale does not hear through the outer ear, the Eustachian tube, or the bones of the skull, but that the sound is communicated indirectly from the water to the air-filled tympanic cavity through the bones of the head.

BURDACH's paper contains a critical notice of the anatomical and physiological relations of the external ear.

SMELLING AND TASTING.

Klaatsch and Stich.—Ueber den Ort der Geschmacksvermittlung. [On the Locality of Taste.] Virchow's Archiv für Pathol. Anatom., vol. xiv, 1858, pp. 225—243. Canst., vol. i, p. 102.

Stich.—Ueber das Ekelgefühl. [On Nausea.] Annalen der Charité Jahrgang VIII, Berlin, 1858, pp. 22—43. Ib., vol. i, p. 102.

Dumeril.—Sur les organes des sens et en particulier de l'odorat, du goût et de l'ouïe dans les poissons. [On the Organs of Smelling, Tasting, and Hearing in Fish.] Compt. Rend., vol. xlvi, 1858, No. 19, pp. 867—879.

Oehl.—Su'l nervo et su l'organo olfattorio. [Remarks on the Olfactory Organ and Nerve.] 8vo. Milano, 1858. (No abstract.)

Beau.—Note sur les papilles de la langue. [On the Papillæ of the Tongue.] Compt. Rend., vol. xlvii, 1858, No. 16, pp. 612—614.

KLAATSCH and STICH made a number of experiments with the extract of quassia, a solution of white sugar, salt, and tartaric acid, in order to ascertain the exact seat of taste. The solutions were applied to different parts of the mouth by means of a fine hair-pencil. They found the soft palate; but neither the uvula nor tonsils, sensible to taste. The trachea was equally insensible. This experiment was made on a patient with a "cut throat." Klaatsch and Stich confirm the opinion of old writers, that certain substances are only tasted in particular spots.

DUMERIL thinks that fish possess the sense of taste, but only by means of their organs of smell. BEAU's paper on the papillæ of the tongue contains nothing new of any interest.

FEELING.

Ogle.—On the Diphaemetric Compass. Beale's Archiv. of Medicine, No. 4, 1859.

Battye.—On a Sixth Sense. Edin. Month. Med. Journ., 1859, pp. 723 and 992.

- Fechner.**—Beobachtungen, welche zu beweisen scheinen, dass durch die Uebung der Glieder der einen Seite, die der andern zugleich mitgeübt werden. [On the Effect of Practice in Perfecting the Sense of Touch in the opposite Limb.] Berichte über die Verhandl. der k. sächsischen Gesellschaft der Wissenschaften zu Leipzig, vol. i, 1858, pp. 70—76. *Leipzig*, 1858.
- Volkmann.**—Ueber den Einfluss der Uebung auf das Erkennen der räumlichen Distanzen. [On the Effect of Practice in Recognising the Distance between Two Points placed on the Limb at the same moment.] The same, pp. 38—69.
- Busch.**—Ueber Innervation in transplantirten Hautlappen. [On the Loss of Sensibility in Transplanted Skin.] Verhandl. d. natur-histor. Vereins d. Rheinlande, vol. xiv, 1857, p. 94. (No abstract.)
- Wundt.**—Beiträge zur Theorie der Sinneswahrnehmung. [On the Tactile Recognition of Distance.] Erste Abhandlung. Ueber den Gefühlssinn mit besonderer Rücksicht auf dessen räumliche Wahrnehmungen. Henle und Pfeuffer's Zeitschrift für rationelle Medicin, vol. iv, 1858, pp. 229—293. Canst., vol. i, p. 102.
- Kammler.**—Experimenta de variarum cutis regionum minima pondera sentiendi virtute. [On the Power possessed by different Parts of the Skin in Detecting Slight Weights.] 8vo. *Vratislaviae*, 1858. Ib., vol. i, p. 102.
- Zantedeschi.**—De la mesure de la limite de sensibilité neuro-musculaire de l'homme étudié comparativement à sa force mécanique. [On Neuro-muscular Sensibility.] Compt. Rend., vol. xlvii, 1858, No. 3, July, pp. 117, 118. (No abstract.)
- Brown-Sequard.**—Sur la sensibilité tactile et sur un moyen de la mesurer dans l'anesthésie et l'hyperesthésie. Journ. de Physiolog., vol. i, 1858, pp. 344—346. (Repetition of a former communication on the means of measuring tactile sensibility.—Valentin.)

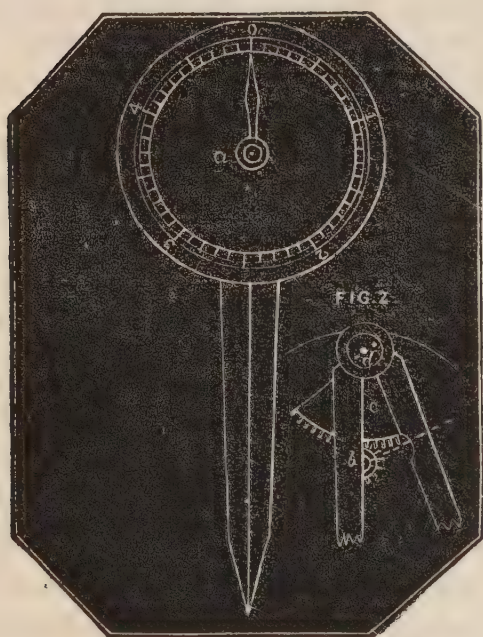
OGLE reviews the observations made with regard to the power possessed by different parts of the skin, in a physiological condition, of detecting (so to say) the double impression made on its surface when two points are made to touch it within a given distance of each other. It was shown by E. H. Weber, in 1834, that different parts of the skin were unequally endowed with this faculty, one which Ogle terms "contactile discrimination." And the subject has since been further investigated by Valentin, Allen Thompson, Belfield Lefèvre, Graves, &c. Ogle considers the observations of these writers, and after certain remarks regarding the general subject of tactile sensibility in a state of health, and its various subdivisions into the subordinate tactile senses of temperature, pain, muscular action, and contactility, he proceeds to notice pathological instances, in which, owing to affections of the nervous system, of cerebral or spinal origin, modifications exist in this capacity of appreciating double impressions simultaneously made; alluding to the application made to clinical purposes by others, such as Brown-Séquard, Sieveking, &c., of the physiological law established by

Weber, as respects the contactile sensibility of the skin. He next refers to cases of disease, in which the contactile discriminating power may be either increased or diminished, and in which variations therein may become practically useful in pointing out to a certain extent the degree in which the nervous system is affected, and also what advances may have been made towards a re-establishment of a healthy condition. He also shows what circumstances exist capable of rendering the instrument *inapplicable* as a means of diagnosis.

The DESCRIPTION of the Diaphemetric Compass is as follows :

The instrument, which is about four and a half inches long, consists of a pair of mathematical compasses, with the usual joint, furnished with a circular dial-plate, whose circumference is divided into inches and tenths and twentieths of an inch, and provided with a central hand or indicator (see fig. 1),¹ which may be turned in

any direction, so as to point to the various subdivisions. This dial is attached to the anterior surface of one of the legs of the compass, and the indicator on its surface is moved by means of a small-wheeled pinion behind the dial, of which the pivot is connected with it through the dial. Into this wheeled pinion (*b*) behind the dial works a segment of a tooth-wheel (*c*), which is attached to the other leg of the compass in such a manner that when the legs are separated, that is, when the compass is opened, the tooth-wheel



working in the pinion moves the indicator on the face of the dial, and makes it point to the various subdivisions. Thus, as these subdivisions are calculated and constructed with reference to the fact that the legs of the compass open round the centre, and not in a straight line (and consequently are not made equal), the exact distance at which the points of the compass are separated may at once

¹ No. 1 in this figure shows the front view of the graduated dial-plate, with the indicator. No. 2 shows the posterior view, with the tooth-wheel working in the wheeled pinion.

be “read off” on the graduated face of the dial-plate. The advantage of this instrument over those which have hitherto been used for similar purposes consists in the readiness of measurement, owing to the great length of the graduations on the dial-plate, the facility with which, with one hand, the measurements may be taken, and the greater ease afforded in measuring contactile discriminative power about the joints or parts where irregularity or convexity of the surface exists.¹

BATTYE entitles his communication ‘An Experimental Inquiry into the existence of a Sixth Sense. To which are added Researches upon the Psychal Functions of the Cerebrum in relation to all the Senses.’ The author’s sixth sense resides chiefly in and about joints, as standing in opposition to or residing in muscles—“resistance or strength being considered the normal state of the sense, and weight as the abnormal.”

FECHNER and VOLKMANN’S experiments were made with the view of ascertaining if the power of distinguishing the intervening distance of two points placed on the skin could be increased by training. They found that after making several experiments on the *left* arm, the *right* became more sensible to distances—and so with the sense of touch. After practising with the fingers of one hand, those of the other gained in sensitiveness. From this they conclude that training chiefly affects the central nervous system. Fechner adds thereto, that training of the muscles of one side of the body to any particular movement increases the same powers on the opposite side. Volkmann found that removing the scarf-skin rendered the sense of touch more acute.

WUNDT’S paper is entirely devoted to a theoretical exposition of the sense of touch. Kammler, on the other hand, relates experiments to show that the skin of the brow and neck is the most sensitive to slight weights, while that of the palm and back of the hand is to heavier ones. This, he says, is a proof that the acuteness of this sense does not depend upon the number of tactile papillæ. (Canstatt’s Jahrs.)

¹ The instrument may be obtained at Messrs. Elliott and Co.’s, instrument makers, Charing Cross, London.

RESPIRATION.

- Smith (Edward).**—Experiments on the Phenomena of Respiration. *Proc. Roy. Soc.*, No. 34, p. 611. *Lancet*, 29th Jan., p. 110.
- Muller.**—Beiträge zur Theorie der Respiration. [A Contribution to the Theory of Respiration.] (*Wiener Med. Wochenschr.*, 1858, No. 44, pp. 770, 771. *Annal. der Chem.*, vol. cviii, p. 257. *Canst.* p. 54. Henle and Meissner, p. 258.)
- Brimmeyer.**—Ueber die Diffusion der gases durch feuchte Membranen. [On the Diffusion of Gases through Moist Membranes.] *Munich*, 1857-8.
- Wiederhold.**—Die Ausscheidung fester Stoffe durch die Lungen. [On the Excretion of Solids by the Lungs.] *Deutsche Klinik*, No. 18. Henle and Meissner, p. 258.
- Fernet.**—Sur l'absorption et le dégagement des gaz de la Respiration et par les dissolution salines et le sang, &c. [On the Absorption and Exhalation of Gases by the Blood and Saline Solutions.] Thèse. *Paris*, 1858. (*Compt. Rend.*, 1858, No. 13, pp. 620—624; No. 14, pp. 644—647.) Henle and Meissner, p. 258, 1859, part 2. *Canst.*, vol. i, p. 54.
- Smith (Edward).**—On the Action of Food upon the Respiration. *Proc. Roy. Soc.*, No. 34, p. 638. *Lancet*, Feb. 26th, 1859, p. 216.
- Meyer.**—De Sanguine oxydo carbonico in facto. [On the Expiration of Carbonic Acid.] 4to. *Vratislaviae*, 1858. *Canst.*, vol. i, p. 54.
- Arnold.**—Ueber die Wirkung der Brustmuskeln bei der Athmung. [On the Action of the Thoracic Muscles in Respiration.] (*Die physiol. Anstalt in Heidelberg*, pp. 146—154.)
- Turk.**—Der Kehlkopfrachenspiegel (Speculum for the Larynx) und die Methode seines Gebrauches. (*Zeitschr. d. Gesel. d. Aerzte in Wien.*, 1858, No. 26.)
- Czermack.**—Physiol. Untersuchungen mit Garzia's Kehlkopfspiegel. [On the Laryngeal Speculum.] (*Sitzungsber. d. Wien Akad.*, 1858, No. 12, pp. 557—584.) (*Schmidt*, vol. 101, No. 2, p. 160.)
- Price.**—On a Convenient Instrument for examining the base of the Tongue and Epiglottis. *Lancet*, Dec. 24, 1859, p. 643.

EDWARD SMITH gives the results of a series of experiments on the quantity of air inspired and carbonic acid expired, with the rate of pulsation and respiration. 1st. In the whole of the twenty-four hours, with and without the excretion of food; 2d, the variations from day to day, and from season to season; and 3d, the influence of some kinds of exertion.

The apparatus he employed consists of a spirometer to measure the air inspired, capable of registering any number of cubic inches; and an analytical apparatus to extract the carbonic acid gas and vapour from the respired air. The former is a small dry gas-meter; the latter, a desiccator of sulphuric acid to absorb the vapour, a

gutta-percha box, with chambers and cells, containing caustic potash, and offering a superficies of 700 inches, and lastly, a second desiccator to retain the vapour which the expired air had carried off from the potash box. A small mask is worn to prevent any air passing into the lungs without first passing through the spirometer. The amount of carbonic acid expired in the twenty-four hours varied from an average of 24·274 ounces in Smith, to 16·43 ounces in Dr. Frankland. The quantity evolved in sleep was 4·88 and 4·99 grains per minute, and 6·1 grains at different times of the night. The whole quantity evolved in the six hours of the night the author estimates at 1950 grains. Hence the total quantity of carbon evolved in the twenty-four hours, at rest, was, in Smith, 7·144 ounces.

The quantity of air inspired in the working-day varied from 583 cubic inches per minute in himself, to 365 cubic inches in Dr. Frankland. The rate of respiration varied in different seasons as well as in different persons. The depth of inspiration from 30 cubic inches to 39·5 cubic inches. The respirations were to the pulsations as 1 to 4·63 in the youngest, and as 1 to 5·72 in the oldest. One half of the product of the respirations into the pulsations gave nearly the number of cubic inches of air inspired in some of the persons, and the proportion of the carbonic acid to the air inspired by them varied from as 1 grain to 54·7 cubic inches to as 1 grain to 58 cubic inches. The variation in the carbonic acid evolved in the working-day gave an average maximum of 10·43, and minimum of 6·74 grains per minute. The quantity increased after a meal, and decreased from each meal, so that the minima were nearly the same, and the maxima were greatest after breakfast and tea. The effect of a fast of forty hours, with only a breakfast meal, was to reduce the amount of carbonic acid to 75 per cent. of the quantity found with food, to render the quantity nearly uniform throughout the day, with a little increase at the hours when food had usually been taken, and to cause the secretions to become alkaline. The variations from day to day were shown to be connected with the relation of waste and supply on the previous day and night, so that with good health, good night-rest, and sufficient food, the amount of respiration was considerable on the following morning. Temperature was an ever-acting cause of variation—a diminution in the carbonic acid took place as the temperature rose. Exercise had a powerful effect. Walking at two miles per hour induced an exhalation of

18·1 grains of carbonic acid per minute, and at three miles per hour of 25·83 grains. While the effect of the treadmill at Coldbath Fields Prison was to increase the quantity to 48 grains per minute.

MULLER analysed air in which rabbits and small dogs had been asphyxiated, and found that when the volume of air was exceedingly small the oxygen disappeared almost entirely from it, while the carbonic acid gas rose to from 10 to 15 per cent. If the volume of air was greater than the volume of the animal, the oxygen remaining was seldom under 5 per cent. When the experiment was so made that the animal always breathed fresh air—the expired gases being removed—it was found that from 6 to 7 per cent. of oxygen in the atmosphere sufficed to support life. When the animal was put into a small volume of pure oxygen gas and allowed to die there, nearly the whole oxygen disappeared; whereas if the volume of oxygen in which the animal was placed was considerable, it became asphyxiated when the carbonic acid gas amounted to from 56 to 58 per cent., and the oxygen had diminished to from 20 to 36 per cent. A more complete account of Müller's experiments is to be found in the 'Ann. d. Chem. u. Pharm.,' cviii, pp. 257—312, Dec., 1858. The conclusion drawn from them is, that nearly the whole of the oxygen can be extracted by the living blood from the inspired air, and so quickly too that it is highly probable that it enters into direct chemical combination with the constituents of the blood, a small portion only remaining physically absorbed. In this respect Müller's results are opposed to the theory of Magnus, and confirm the experiments of Harley.¹ The chief features of respiration lie, it appears, in the fact, that while the constituents of the blood go on absorbing the oxygen, and thereby diminishing its volume (and consequent absorption-pressure) they at the same time continue to yield up a constant supply of carbonic acid, which, gradually surmounting the absorbing capacity of the blood, becomes exhaled.

BRIMMEYER's experiments on hydrogen, oxygen, carbonic acid, and atmospheric air, led him to believe that gases, in passing through moist membranes, obey the law of absorption.

WIEDERHOLD says, that from a number of careful observations that he has made, he has come to the conclusion that the lungs, like the skin and kidneys, excrete inorganic as well as organic substances. On collecting a large quantity of expired air, and testing

¹ 'Brit. and For. Med.-Chir. Rev.,' vol. xxxvi, Oct. 1856, p. 413.

it with suitable reagents, he found that it contained chloride of sodium, uric acid, urate of soda, and also urate of ammonia, as well as a small quantity of urea. He was even able to obtain these substances in a crystalline form.

FERNET and MEYER have both studied the influence of the salts in the blood on the absorption and exhalation of the gases. Experiments with carbonic acid and an aqueous solution of carbonate of soda showed, that while one part of the gas is chemically combined, the other remains free in the solution. The quantity of gas remaining in solution is, however, smaller than (according to Dalton's law) it would be in pure water. The more concentrated the solution, the less free gas. The carbonate of soda, by combining with the carbonic acid, becomes a bicarbonate. A somewhat similar result is obtained with carbonic acid gas and a solution of phosphate of soda. When the salt used, however, is chloride of sodium, no chemical combination is observed to take place—physical absorption only occurs.

The serum of ox-blood behaves towards carbonic acid gas in the same way as the solutions of carbonate and phosphate of soda. A solution of carbonate of soda, or of phosphate of soda, takes up a quantity of oxygen greater than that taken up by pure water. A solution of common salt, on the other hand, absorbs less; and serum, again, chemically unites with a quantity of oxygen, over and above what it retains physically mixed with it.

Nitrogen is absorbed by all the solutions, according to Dalton's law only. If blood be long exposed to a stream of carbonic acid gas, the blood-corpuscles are destroyed, whereas they are not affected by either oxygen or hydrogen gas.

SMITH's aim in this communication is to show the variations in the influence of food. His method of inquiry is, to take a moderate quantity of a single article of food alone, before breakfast, whilst the body is at rest and in a sitting posture, and to determine the influence every ten or fifteen minutes during a period of about two hours. The results obtained led the author to conclude—1st. That pure starch scarcely increases the amount of carbonic acid evolved; but with the addition of gluten and sugar, as in the cereals, causes an increase of about two grains per minute. 2d. Fats lessen the amount of carbonic acid evolved, but increase pulsation. 3d. Sugars increase the exhalation of carbonic acid to the maximum extent of from 1·5 to 2·5 grains per minute in

about half an hour. Cane is more powerful than milk sugar, and still more so than grape. Acids increase the maximum influence of sugar. 4th. Milk increases both the pulsation and the carbonic acid, the latter to a maximum of nearly two grains per minute. All the component elements have a similar effect, but new milk is much more powerful than any of its elements separately, or than any artificial combination of them. 5th. Tea and coffee increase the production of carbonic acid to the extent of from one and a half to three grains per minute. Tea is more powerful than coffee, and coffee than chicory. Cocoa is as powerful as coffee. Acid added to tea makes it more stimulating; alkalies make it more soothing. 6th. Alkalies differ in their effect, both as regards the kind and different sample. Spirits of wine always increases the quantity of carbonic acid evolved to a maximum of less than one grain per minute. Rum commonly increases it, sometimes to one and a half grain per minute. Ale and stout increase it to upwards of one grain per minute. Sherry wine (three ounces) commonly increases it. Brandy and gin, and particularly the latter, always decrease it. Whisky varies in its effects. The inhalation of the volatile elements of wine and spirits, and particularly of fine old port, lessen the quantity of carbonic acid, and increase the amount of vapour exhaled.

The *non-excitants* are starch, fat, some alcohols, and coffee-leaves. The *respiratory excitants* are sugar, milk, the cereals, potato, tea, coffee, chicory, cocoa, alcohol, rum, ale, some wines, gluten, casein, gelatin, fibrin, and albumen.

All the "respiratory excitants" increase the *depth*, but not the *rate*, of respiration. Some of them produce much greater effect when a small dose was given, and frequently repeated, than when the whole quantity is taken—such as tea. The evolution of carbon is greater than the amount contained in the excitant.

ARNOLD made a number of experiments on animals (stunned by a blow on the head), in order to ascertain the movements of the thoracic muscles during respiration. The raising of the ribs and the widening of the thorax is still possible after section of the pectoral and serratus magnus muscles, which proves that they are not essential to respiration. During gentle respiration the abdominal, move much more than the thoracic ribs. This is in consequence of the action of the diaphragm. The first rib does not move at all, except in deep inspiration. During the raising of the

true ribs the internal as well as the external intercostal muscles contract.

TURK and CZERMACK employed Grazia's larynx-speculum in order to study the movements of the various parts of the larynx during the acts of respiration, swallowing, and speaking. The mirror of the speculum is a four-cornered glass or metal plate, from six to fourteen lines (Austrian) in diameter; it is attached to a piece of wire, by which it can be passed into the back of the throat. In order that the breath may not dim its surface, it is slightly warmed before being used. It was ascertained that—1st. In normal respiration the vocal cords are so wide apart that the fingers may be passed between them. 2d. In forced inspiration the opening is widened. 3d. In forced expiration slightly contracted. 4th. In speaking, the vocal cords move rapidly. The sharper the tone the closer they approach each other, &c.

PRICE's instrument is almost the same as Grazia's.

VITAL CAPACITY OF THE LUNGS.

Geist.—Altersveränderungen der Athmungscapacität. (Froriep's neue Notizen, 1858, No. 21, pp. 321—326; No. 22, pp. 337—346. (An extract from the author's work on Old Age—effect of, on the Vital Capacity.)

Schnepf.—Capacité vitale du Poumon, ses rapports physiologiques et pathologiques avec les maladies de la poitrine. [The Relation between the Vital Capacity and Pulmonary Affections.] *Paris*, 1858.

Arnold.—Ueber die Athmungsgrösse des Menschen. [On the Human Vital Capacity.] (Die physiol. Anstalt in Heidelberg, pp. 146—154.)

Rameaux.—Des lois suivent les quelles les dimensions du corps dans certaines classes d'animaux, déterminent la capacité et des mouvements fonctionnelles des Poumons et du Cœur. [On the Laws which Regulate the Capacity of the Lungs, &c.] 4to. *Bruxelles*, 1857.

Schnepf.—De la circonference de la poitrine et de l'élasticité de la cage thoracique par rapport à la capacité vitale du Poumon. [The Influence of the Circumference and Elasticity of the Thorax on the Vital Capacity.] (*Gaz. Méd. de Paris*, 1857, No. 51, p. 795.)

The preceding articles treat of the vital capacity of the lungs as measured by the spirometer, and the value of that instrument in the diagnosis of pulmonary disease. ARNOLD's monograph requires special notice, as from very careful experiments and observations made on the human subject he has shown that the quantity of air inspired by a healthy individual can be calculated with something like exactitude if the following facts be kept in view—1st. The

vital capacity of a man increases with his stature, in the proportion of 9·6 cubic inches for every inch in height. If, therefore, a man of 62 inches in stature possesses an average vital capacity of 172·8 cubic inches, another of 68 inches stature will have a breathing capacity of 230·4 cubic inches, and a third person, 72 inches in height, a capacity of 288·8 cubic inches. 2d. In men the vital capacity increases with the circumference of the chest in the same ratio, namely, 9·6 cubic inches for every inch of increase in thoracic circumference. If the chest measures 26 inches, the vital capacity will, on an average, amount to 165·12 cubic inches. With a thoracic circumference of 32 inches it will increase to 222·7 cubic inches; and if the circumference be as much as 36 inches, the vital capacity will be no less than 226·12 cubic inches. 3d. The mobility of the chest has a great influence over the vital capacity. Its value increases with the stature and with the circumference of the chest. 4th. The vital capacity increases from the fifteenth to the thirty-fifth year of age nearly 10·2 cubic inches, and sinks from the thirty-fifth to the sixty-fifth about 57·5 cubic inches, at different periods and in different proportions. 5th. The position, occupation, and mode of life have an undeniable influence on the breathing-capacity. It is at its maximum among sailors, soldiers, and strong young men with out-door occupations; at its medium among mechanics, compositors, and pressmen; and at its minimum among paupers and the upper classes. 6th. In women the vital capacity is absolutely and relatively less than in men. It increases in the female sex at the rate of 6·4 cubic inches for every additional inch in height, and with the circumference of the chest in similar proportion.

Arnold gives a very complete set of tables for calculating the vital capacity of any individual; the height, thoracic circumference, mobility, &c., being taken into account.

DIGESTION.

Gilbert.—On the Composition of the Animal Portion of our Food and its relation to Bread. (*Quarterly Jour. of the Chem. Soc.*, April, 1859, vol. xii, p. 54.)

Lankester.—Guide to the Food collection in the South Kensington Museum. *London*, 1859.

Corvisart.—On an imperfectly known Function of the Pancreas. (*Lancet*, 26th Feb., 1859, p. 209.)

Keferstein and Hallwachs.—Ueber die einwirkung des pancreatischen Saftes auf Eiweiss. [On the Action of Pancreatic Juice on Albumen.] (*Göttinger gelehrte Anzeigen*, August, 1858, pp. 145—155.)

- Brinton.**—On the Digestion of Protein Substances by the Pancreas. (Dublin Quarterly Journal, August, 1859, p. 194.)
- Funke.**—Ueber die Function des Pancreas. [On the Function of the Pancreas.] (Schmidt's Jahrb., vol. 97, pp. 21—25.)
- Berard et Colin.**—Mémoire sur l'extirpation du Pancréas. [On the Extirpation of the Pancreas.] (Bullet. de l'Acad. de Méd., Feb., 1858, pp. 250—264. Canstatt, vol. i, p. 35, and following.)
- Corvisart.**—Some Remarks upon the Criticisms lately made upon the Digestion of Albuminous Bodies by the Pancreas. (Lancet, 18th June, 1859, p. 605.)
- Moleschott.**—Lehre der Nahrungsmittel für das Volk. 3d ed. *Erlangen*, 1858. [A Popular Treatise on Food.] The first edition of this work was translated into English by Dr. Bronner.
- Schuh.**—Ueber die Bewegungen des weichen Gaumens beim sprechen und Schlucken. [On the Movements of the Soft Palate during Speaking and Swallowing.] (Wien. Med. Wochenschr., No. 3, pp. 33—36, 1858.)
- Trousseau.**—Rapport sur la Ligature de l'Œsophage. [On Ligature of the Œsophagus.] (Bullet. de l'Acad. de Méd., vol. xxiii, pp. 999, 1062, 1072, 1090; 1858.)
- Orfila.**—Ligature de l'Œsophage. [The same.] (Gaz. des Hôp., May, 1858, p. 226.)
- Blondlot.**—Sur quelques perfectionnements à apporter dans l'établissement des fistules gastriques artificielles. [On an improved method of making an Artificial Gastric Fistula.] (Jour. de Physiol., vol. i, 1858, pp. 89—94.)
- Blondlot.**—Nouvelles Recherches sur la Digestion. Premier Partie. Sur le principe acide du suc gastrique. [New Experiments on Digestion. On the Acid of the Gastric Juice.] (Ib., pp. 308—320.)
- Smith et Brown-Sequard.**—Sur la Transformation de l'Amidon en Glucose dans l'Estomac. [On the Transformation of Starch into Sugar in the Stomach.] (Ib., pp. 158, 159.)
- Bardeleben.**—Ueber den Einfluss des Magensaftes auf die umwandlung des stärke Mehls in Zucker. [On the Influence of the Gastric Juice on the Transformation of Starch into Sugar.] (Deutsche Klinik, 1858, No. 16.)
- Arnold.**—Ueber die verdauung des thierischen Eiweisses. [On the Digestion of Animal Albumen.] (Die physiol. Anstalt v. Heidelberg, 1853—1858.)
- Coopmanns.**—Sulla digestione dell' Albumina Vegetabile. [On the Digestion of Vegetable Albumen.] *Torino*, 1858.
- Florent.**—Sur la digestion. [On Digestion.] (Compt. Rend., Jan., 1858, pp. 17, 18.)
- Colby.**—Zur Physiologie des Dickdarms. [On the Physiology of the Large Intestines.] (Schmidt's Jahrbuch., vol. 98, pp. 153 and 858. Valentin says that it contains nothing either clear or new.)
- Busch.**—Beitrag zur Physiologie der Verdauungs-organe. [Contribution to the Physiology of the Digestive Organs.] (Virchow's Archiv, vol. xiv, pp. 140—186.)
- Lehmann.**—Ueber die mineral. Nährstoffe, insbesondere über die Erdphosphate als Nährstoffe des jungen thier. Organismus. [On Inorganic Food, especially on the Earthy Phosphates in the Food of Young Animals.] Lieb. Annal., vol. 108, p. 357.

GILBERT's paper contains the results of experimental data, showing that the largest part of the solid substance of the animal body

is fat. On the other hand, the dry, nitrogenous matter, even including the wool in the case of sheep, is less than half, and sometimes even less than one third, of the quantity of dry fat. Only a small proportion of the increase of a fattening animal is nitrogenous substance. Therefore the relative value of fattening-foods depends more on the digestible, non-nitrogenous, than on the nitrogenous material they contain. It appears, therefore, that the admixture of animal with farinaceous diet does not increase, but diminishes, the relation of the flesh-forming to the fat-forming capacity of the collective food.

CORVISART's experiments upon the pancreatic fluid have led him to the same conclusions as those arrived at by Pappenheim and Purkenje many years ago, namely, that the pancreas, as well as the stomach, secretes a substance capable of transforming protein matters into peptone. He thinks that "the pancreatic juice is intended to act upon that part of the albuminoid substances which have left the stomach before being transformed into peptone;" and that a secondary duodenal dyspepsia may result from a faulty pancreatic secretion. It may be cured, he says, by treatment suited to gastric dyspepsia.

KEFERSTEIN and HALLWACHS experimented with pancreatic juice obtained from an artificial pancreatic fistula; but did not find that it possessed the power of digesting albumen, and transforming it into peptone. On the contrary, they thought the effect Corvisart described was simply due to putrefaction.

The title sufficiently indicates the object of M. Corvisart's second paper. He relates only one new experiment in support of his views regarding the power possessed by the pancreatic juice of digesting hard-boiled white of egg. He says that thirty-five grammes of albumen were completely digested in a dog's duodenum in the space of fifteen hours, and that the reason why Keferstein and Hallwachs failed in their experiments was on account of their employing pancreatic juice secreted under abnormal circumstances.

BRINTON finds that the action of an infusion of the pancreas on coagulated albumen is very irregular. It sometimes dissolves a large quantity, and sometimes none at all. The pancreatic solution, he says, is much slower in its action on albumen than gastric juice, requiring from two to six times longer time for its effects to be well marked. He says, too, that the action of the pancreatic fluid is accompanied in some cases by a putrefaction, which in others is

incomplete, but discernible through a change in the odour of the mixture. The action is generally increased by the addition of a small quantity of alkali, diminished by the addition of a few drops of acid. He found, too, that the same infusion which, made from a perfectly fresh pancreas, has no action, energetically dissolves coagulated albumen in its subsequent stages of putrefaction. Although he admits that the action of the pancreatic solution in digesting albumen is "quite specific" to the organ, and is absent from the salivary glands, he yet doubts that it dissolves albumen in the living body.

It may be well to remark that Brinton does not expressly state whether the specimens of pancreas he used were taken from animals killed during digestion or fasting. And that this is a point of great importance in deciding the question, for, as Corvisart has shown, the juice of the pancreas from the fasting animal has little or no power over coagulated albumen.

FUNKE, again, who operated much in the same way as Brinton, came to the conclusion that pancreatic juice has in reality the power of transforming albumen into peptone.

BERARD and COLIN extirpated the pancreas from four young dogs, two pigs, a goose, and a duck; they all grew and lived to be adults. From their experiments Berard and Colin conclude that the pancreas is not essential to the absorption of fatty matters.

SCHUH observed the movements of the soft palate during speaking and swallowing on a woman, æt. 36, who had part of the left cheek removed by operation on account of disease.

TROUSSEAU's report on the effects of ligature of the œsophagus is favorable to the opinion expressed by mostly all writers on the subject. 1. Permanent ligature of the œsophagus is invariably fatal. 2. If the ligature be removed within twenty-eight hours, the animal may recover. 3. In the latter case, a fistulous opening in the neck is not unfrequently formed. 4. Fasting animals live longer than those operated on with a full stomach.

In the establishment of artificial gastric fistulæ, BLONDLOT proposes to replace the canula by means of a gutta-percha, cork, or ivory stopper, introduced by the mouth, and drawn into the wound by means of a string. In his recent researches on digestion, he believes that he has been able to confirm his previously published opinion regarding the acidity of the gastric juice. It depends, he thinks, on the presence of the acid phosphate of lime (Po_3CaO).

SMITH and BROWN-SEQUARD call attention to a fact already well known—namely, that starch is transformed into sugar in the stomach. BARDELEBEN imagines that the gastric juice itself has the power of producing this transformation. Other observers believe, however, that when starch is changed into sugar in the stomach, some saliva or mucus secretion from the œsophagus or other part of the digestive canal must have mingled with it, for pure gastric juice out of the stomach has not the power of changing starch into glucose. Arnold found that uncooked white of egg is not coagulated in the stomach, and that, other things being equal, it is more rapidly digested than hard-boiled. FLORENT PREVOST confirms the fact that many birds alter their food at different periods of life; some begin by living on insects, then change to corn, afterwards returning to insects. All of the foregoing papers contain valuable information. We have not, however, space to give a fuller abstract of them.

BUSCH relates the very interesting case of a woman, æt. 31, with a jejunal fistula (wound made by bull's horn), on whom he made a series of experiments. He ascertained—1st. That the temperature of the intestines does not increase during digestion. 2d. That the sensation of hunger does not depend on the stomach being empty. (She felt hungry even when the stomach was quite full.) 3d. The peristaltic action of the intestines is not constant. (It entirely ceased from 11 o'clock at night to 4 o'clock in the morning. This state of repose occurred whether she was asleep or awake; whether she had taken supper or gone to bed fasting.) 4th. Anti-peristaltic as well as peristaltic movements exist. 5th. The intestinal juice is always alkaline. 6th. It transforms starch into sugar, but does not change cane- into grape-sugar. 7th. Albumen and fibrin are dissolved in the intestines. 8th. A mixture of gastric, pancreatic, and intestinal juices along with bile, dissolves albumen, even when the mixture is neutral or alkaline.

LEHMANN made a number of experiments on calves, with the view of ascertaining if their food contains sufficient earthy salts for the growth of their bones. He has given his results in a tabular form. The following is one of the most instructive of the tables, as it shows—(a). That the metamorphosis of the tissues during four days is tolerably regular. (b). That the quantity of the solids excreted in the first forty-eight hours is about the same as in the last, although the quantity of water is less.

Table showing the results of Lehmann's Experiments.

In forty-eight hours a calf received as food, and excreted the following substances.	Weight of the substances in grammes.	Dry substance.	Water in Grammes.	Ashes.	Silicic Acid.	Lime.	Magnesia.	Phosphoric Acid.
In food, without any addition of phosphates	13000	...	...	...	...	49.062	24.492	78.334
Solid excrements while on this food .	9300	1775.7	7524.3	195.045	81.444	28.320	18.396	30.030
Urine passed while on this food .	8023.624	...	...	...	...	Traces.	4.387	12.042
Earths and phosphates retained in the animal's body . . . . .	...	...	...	...	...	20.742	1.709	36.262
Receiving similar food, with the addition of earthy phosphates	13012.847	...	...	...	...	57.632	24.578	89.262
Solid excrements passed	10050	1750	8300	196.000	76.879	30.856	17.540	32.024
Urine passed	9162.480	...	...	...	...	Traces.	5.313	15.293
Earths and phosphates retained in body . . . . .	...	...	...	...	...	26.776	1.725	42.047

From the results given in this and other tables, Lehmann concludes—1. That calves often receive too small quantities of lime and phosphoric acid; while they, at the same time, receive an excess of magnesia. 2. That hay is the food which furnishes to the calf the greatest amount of material for the growth of the bones. 3. That the mineral substances required for the growth of bone (lime, magnesia, and phosphoric acid), when given in the form of powder, are digestible. ('Canst. J.,' p. 158.)

ABSORPTION.

Waller.—Experiments on some of the various circumstances influencing Cutaneous Absorption. (Proceedings of Royal Society, No. 36, p. 122.)

Funke.—Ueber das endosmotische Verhalten der Peptone. [On the Endosmotic Equivalent of Peptone.] (Virchow's Archiv, vol. xiii, pp. 449—462.) Canstatt, vol. i, p. 43, and following.

Ludwig.—Physiologie der Endosmose. [Physiology of Endosmose.] (Froriep's neue Notizen, vol. iii, 1858, Nos. 1 and 2. This paper is an extract of the chapter on Endosmose in his Text-book.)

Haidenhain.—Die Absorptionswege des Fettes. [On the Absorption of Fat.] (Moleschott's Unters., vol. iv, p. 251.)

Reclam.—Experimental-Untersuchungen ueber die Ursache der Chylus und Lymphbewegung und der Fettresorption. [An Experimental Inquiry into the Origin of Lacteal and Lymphatic Circulation.] 4to. *Leipzig and Heidelberg*, 1858.

Basslinger.—Ueber die Chylusgefäße der Vögel. [On the Lacteals of Birds.] (Zeitschr. f. Wissenschaft. Zoologie, vol. ix, pp. 301—303.)

Kohler.—Ueber den Unterschied in der aufsaugung zwischen hungernden und gefütterten Thieren. [On the Relative Rapidity of Absorption in Animals Fasting and Digesting.] 8vo. *Marburg*, 1858.

Meder.—Aorta abdominali subligata, vasa lymphaticæ non resorbere experimentis demonstratur. [Experiments on Absorption by the Lacteals.] 8vo. *Gryphiæ*, 1858.

Schwanda.—Ueber die quantität der in bestimmten Zeiten und unter verschiedenen Umständen abgesonderten Lymph. [On the Quantity of Chyle formed in a given time.] (Wiener Med. Wochenschr., 1858, pp. 236—249.)

Kohnhorn.—De Cataracta aquæ inapia effecta. [On the Artificial Production of Cataract.] *Gryphiæ*, 1858.

WALLER says that one of the simplest modes of demonstrating the existence of cutaneous absorption is by immersing the leg of a young guinea-pig in a mixture of equal parts of chloroform and tincture of aconite. In fifteen minutes the part will be found insensible, and, after a short time, symptoms of poisoning supervene—even death. The influence of age, or of thickening of the cuticle, can be demonstrated in the same way; if an adult animal be

employed, no poisoning, but only local insensibility and slight disturbance of the respiration, &c., supervene. If the chloroform be omitted (under the same circumstances as first related), neither local insensibility, death, nor, indeed, any symptoms of poisoning, are observed. Section of the sciatic nerve in the adult animal increases to such an extent the power of cutaneous absorption in the paralysed limb, that the animal is even poisoned by immersion of the lamed extremity in simple tincture of aconite. Waller thinks this arises from the paralysis of the blood-vessels, allowing the blood to flow faster within them. The foot, after division of the nerve, is, on this account, both hot and red. Ligaturing the limb, although it impedes the power of absorption, is less efficient than might be anticipated.

On substituting atropine for aconite, and an albino rat for a guinea-pig, he was able to measure the absorption more readily. A solution of atropine in chloroform (half a grain to a drachm) dilates the pupil after the foot has been immersed in it from two to five minutes. Immersion of one limb dilates both pupils equally. The local effects of the immersion are—heat, redness, and swelling of the foot, accompanied sometimes with extravasation of blood from some of the smaller vessels. The part is less sensible; but in no case insensible. When a solution of atropine in turpentine is employed, the pupil scarcely, if at all, dilates during the immersion; but immediately after the removal of the limb, the dilatation commences. After two or three minutes' immersion the animal shows signs of pain, and much inflammation of the part follows the employment of this solution.

Atropine and alcohol.—Dilatation of the pupil can only be obtained in this case after from twenty to thirty minutes.

Atropine in water, with the addition of sufficient acetic acid for its solution.—Dilatation only occurs in this case after thirty minutes. Waller found that, contrary to what might have been expected, the pupils dilate when the foot of the rat is kept five minutes in a solution of half a grain of the acetate of morphia, twenty drops of alcohol, and one drachm of chloroform. With a solution of strychnine and chloroform, the pupils dilate after three minutes' immersion; after five, spasms come on; and in two minutes after the removal of the foot from the mixture death ensues. In strychnine and alcohol the foot may be immersed thirty-five minutes with perfect impunity.

From the above-cited observations it appears that the rapidity of cutaneous absorption greatly depends on the menstruum employed for dissolving the poison.

As albumen undergoes during the digestive process an important change before it passes through the walls of the intestines into the blood, it is possible that the object of this change is to render it more easy of absorption. FUNKE put this theory to the test, and ascertained that peptone has a very much higher endosmotic equivalent than simple albumen. A solution of peptone, made by digesting white of eggs in artificial gastric juice prepared from the pig's stomach, is as rapidly absorbed by the intestines as a solution of sugar, whereas only the smallest quantity of pure albumen passes through the intestinal walls.

HAIDENHAIN says that the roots of the epithelium-cells lining the frog's intestine have long, fine fibres attached to them (like what Gerlach described in the brain); which enter the mucous membrane, and end in little swellings. If the frog is made to swallow oil, and the intestines be afterwards examined, the epithelium-cells, the fibres, and the swellings at their extremities, are all found filled with oil. From this he concludes that these fibres form a system of hollow tubes, which communicate with the lacteals. This communication has not, however, been observed.

RECLAM made a number of experiments in order to show that the exhalation of watery vapour from the lungs and skin excites a current (of fluids) in the tissues. And further, that the rapidity of intestinal absorption depends upon the rapidity of the cutaneous and pulmonary evaporation. (His experiments scarcely admit of this conclusion.—VALENTIN.)

BASSLINGER observed a network of lacteals in the intestinal walls of the goose, and a quantity of fat-globules in the chyle.

KÖHLER's experiments were made with the view of ascertaining whether poison acts quickest on animals while digesting or fasting. He found that fasting animals were most slowly poisoned, and this he supposes arises from their circulation being slower. The effect was most marked when the poison was not introduced into the stomach, but into the subcutaneous cellular tissue.

MEDER found that after ligature of the abdominal aorta, the lymphatics do not take up strychnine.

SCHWANDA calculated the quantity of chyle passing through the thoracic duct (of dogs) in one hour. The maximum quantity he

found to be 7·839 grm. in an animal weighing 7740 grm. The minimum 0·314 grm. in one weighing 13,303 grm.

KOHNHORN examined the effect of removing the water from the frog's body by evaporation, or by giving the animal sugar, salt, &c. He found that frogs live until they lose from thirty to forty per cent. of their weight. At first the respiration is increased, but afterwards it becomes laboured, and the heart's action diminished. If water be rapidly given them, the animals take it up, and actually became heavier than they were at first. The fluids of the eye do not appear to be *proportionally* affected. The cornea becomes flattened, and the lens sometimes dim. On giving large quantities of salt to dogs, cats, and rabbits, he found, as Kunde said, that cataract is induced.

SECRETION.

Inman.—On the Influence of Vitality on Secretion. Brit. Med. Jour., 30th April, p. 350. And on Excretion, 11th June, p. 461. 1859.

Spender.—Remarks on Dr. Inman's Paper, 4th June, 1859. Brit. Med. Jour., p. 442.

Gasne.—Recherches sur la Transpiration dite insensible. [On Insensible Transpiration.] 4to. Paris, 1857. (A compilation of known facts.—Valentin.)

Funke.—Beiträge zur Kenntniss der Schweis-secretion. [Contribution to our Knowledge of Cutaneous Perspiration.] (Moleschott's Untersuchungen, vol. iv, 1858, pp. 36—57.)

Leconte et Demarquay.—Mémoire sur les phénomènes pathologiques, physiologiques, et chimiques, produits par les injections d'air, d'azote, d'oxygène, d'acide carbonique, et d'hydrogène, dans le tissu cellulaire et le péritoine. [On the Effects of the Introduction of Air, Oxygen, Carbonic Acid, and Hydrogen into the Cellular Tissue and Peritoneum.] (Compt. Rend., vol. xlv, March, 1858, pp. 632—633.)

Bernard.—Sur les variations des couleurs dans le sang veineux des organes glandulaires. [On the Variation of Colour in the Venous Blood of Glands.] (Compt. Rend., vol. xlv, Jan., 1858, pp. 159—165. Journ. de Physiol., 1858, pp. 233—241.)

Bernard.—De l'influence de deux ordres de nerfs qui déterminent les variations de couleur du sang veineux dans les organes glandulaires. [On the Influence of the Nerves in Determining the Colour of the Venous Blood of Glands.] (Compt. Rend., July, 1858, pp. 245—253.)

Bernard.—Sur la quantité d'oxygène qui contient le sang veineux des organes glandulaires à l'état de fonction et à l'état de repos. [On the Quantity of Oxygen in the Venous Blood of Glands during the period of Active Secretion and of Repose.] (Compt. Rend., August, pp. 393—400.)

Gluge et Thiernesse.—Notes sur la coloration rouge de sang veineux. [On the Red Colour of Venous Blood.] (Bullet. de l' Acad. de Bruxelles, 1858, No. 6, pp. 1—7.)

Czermack.—Ueber die Beihölfe der nerven zur Speichelsekretion. [On the Influence of the Nerves on the Salivary Secretion.] (Moles. Unters., vol. v, pp. 73—90.)

Eckard.—The same. H. u. Pf.'s Ztschr., vol. v, p. 334.

Ludwig und Spiess.—Vergleichung der Warme des Unterkiefer Drüsenspeichels und des gleichseitigen carotidenblutes. [On the Difference in Temperature of the Saliva from the Submaxillary Gland, and the Carotid Blood.] (H. u. Pf.'s Zeitschr. für ration. Med., iii Reihe, vol. ii, pp. 361—367.)

MILK.

Schlossberger.—Menschliche Milch von ganz enormen Fettgehalt. [Human Milk containing an immense Excess of Fat.] Annal. der Chem. u. Ph., vol. 108, p. 64.

Trommer.—Der Eiweissgehalt der Kuhmilch. [On the Albumen of Cow's Milk.] Deutsche Klin., 42, 1858.

Monier.—Nouvelle méthode pour l'analyse du lait au moyen de liqueurs titrées. [New Volumetric Method of Analysing Milk.] Compt. Rend., vol. xlv, 1858, pp. 236 and 425.

LIQUOR AMNII.

Majewski.—De Substantiarum, quæ liquoribus Amnii et Allantoidis insunt rationibus diversis. [On the Composition of the Allantoid, and Amniotic Fluids.] Dissert. inaug. *Dorpati*, 1858.

In his first paper, INMAN points out that excessive secretion is a more frequent concomitant of debility than of strength, and brings forward many cases in illustration of his views. SPENDER, in his remarks on the paper, thinks that Inman has confounded two essentially different processes—*active* and *passive* secretion, and believes that whenever we have an augmented secretion, as the result of weakened power, we ought to regard it, not as an exaltation of a physiological act, but rather as a purely physical process. In his second paper, Inman implies that all excretions have a certain degree of vitality, which prevents their undergoing decomposition, and that the decomposing process begins when the vitality is destroyed; consequently he regards the vitality of an excretion as the criterion of a patient's strength; the quicker the excretion decomposes, the weaker being the vital power of the individual who passed it.

FUNK calculated the quantity of sweat given out by different parts of the body during an hour or an hour and a half of active

exercise. The experiments were made upon himself—by covering up a portion of the skin with a piece of caoutchouc, and so attaching a little flask that the perspiration ran into it as soon as formed. He reckons that the whole body yields from 53·040 to 815·337 grm. (from about 20 to 27 oz.) per hour; and of solids, from 0·923 to 6·967 grm. He found a volatile acid, but no lactic acid, in the sweat; also a large per-centage of urea, but no uric acid. Scherer in his review ('Canstatt,' vol. i, p. 184), gives the following table :

	Temperature in shade. (Celsius.)	Perspiration in one hour.	Solids in perspiration.
		GRAMMES.	GRAMMES.
Moderate exercise in a room . .	22°5	309·628	3·625
Ditto . .	19°	101·762	1·383
Ditto . .	19°	117·300	1·373
Active exercise in a room . . .	18°5	77·435	0·923
Ditto . . .	21°	115·498	...
Very moderate exercise . . .	20°	74·443	1·262
Very active exercise	20°	180·523	1·514
Moderate exercise	17°5	53·040	1·357
Active out-door exercise . . .	27°	267·784	...
Ditto . . .	31°	115·702	1·303
Ditto . . .	31°	513·400	4·286
Ditto . . .	31°	815·337	6·967
Moderate out-door exercise . .	27°5	485·758	...
Ditto . . .	27°5	236·300	...
Active exercise in the room . .	25°	391·153	...
Ditto . . .	21°8	618·970	5·100
Active exercise on a cloudy day .	13°	561·765	3·909
		215·067	1·699

LECONTE and DEMARQUAY examine anew the changes which different gases undergo when injected into the subcutaneous cellular tissue or into the peritoneum. Atmospheric air alters very rapidly; its 21 per cent. of oxygen soon falls to about 6 per cent., and in twenty-four hours 4·8 per cent. of carbonic acid from the blood partly supplies the place of the oxygen that has disappeared. When nitrogen is injected, it is partially absorbed, and replaced by oxygen and carbonic acid. A similar result is obtained with hydrogen, but in this case, besides oxygen and carbonic acid, there is also nitrogen present. The whole of the hydrogen disappears after sixty-two hours. When carbonic acid is injected, its place is supplied by nitrogen and oxygen, all the carbonic acid being absorbed in the short space of forty-five minutes. These experimenters did not notice any bad

results follow the injection of the before-named gases, either into the peritoneum or subcutaneous cellular tissue, although some of the gases (especially oxygen) did not entirely disappear for a week or two.

In experimenting on dogs and rabbits, BERNARD observed that the blood returning from the kidney by the renal vein was of as bright a scarlet colour as that going to it by the artery. He further observed that this state of things only existed so long as the secretion of urine continued. If from any cause the urinary secretion was temporarily arrested, the blood returning from the kidney had the usual venous hue. The same thing was observed to occur in the blood of the submaxillary gland. That is to say, during the time the gland was secreting saliva, its venous, had the same colour as its arterial blood. On the other hand, while the gland was in a state of repose, in as far as the secretion of saliva was concerned, the blood in the vein was of the usual purple tint. Bernard further observed that section of the nerve-twig which the gland receives from the lingual branch of the fifth—this twig, properly speaking, comes from the seventh, and only accompanies the fifth through a certain part of its course—immediately arrested the salivary secretion, and caused the blood in the vein to resume the usual dark colour. Whereas, when galvanism was applied to the peripheral end of the divided nerve, the secretion was resumed, and the venous again resembled the arterial blood in colour. Thus, it would seem that the effect of functional activity, upon the colour of the blood of glands and of muscles, is reversed; for it is well known that the more actively a muscle contracts, the darker is the hue of its venous blood. Bernard promises to explain the peculiar action of the gland-tissue above alluded to in a future communication.

GLUGE and THIERNESSE obtained somewhat different results from those just mentioned. They studied the question on the kidneys and maxillary glands of two dogs, on the kidneys and parotids of four horses, on both submaxillary glands of a sheep, and lastly, on the kidneys of a rabbit and another dog. The conclusions are that—

1st. The venous blood of the kidney during repose is as dark as that in the inferior cava. 2d. During the time the kidney is secreting urine, the blood becomes purple-red, but never attains the bright-scarlet hue of arterial blood. 3d. The venous blood from the parotid and submaxillary glands remains dark in colour even when the secretion is active.

It must be left to future research to clear up the discrepancies of these different experiments.

CZERMACK found that the application of electricity to the cervical sympathetic, under certain conditions, first increases, then arrests, the flow of saliva from the submaxillary gland. ECKARD found that the secretion differs in appearance and in chemical properties according as the sympathetic or the lingual nerve is stimulated.

LUDWIG and SPIESS found that the temperature of the saliva secreted by the submaxillary gland, when galvanism is applied to its nerves, is greater than that of the blood from which it is secreted. The difference of temperature being 1·8 degree. This fact proves that the process of secretion, like many of the other animal functions, is attended with a notable increase of heat.

On analysing the milk from the hypertrophied breast of a woman, æt. 26, SCHLOSSBERGER found it of a specific gravity of 0·98—0·99, whereas that of normal milk is 1·02—1·046. The milk contained in 100 parts—

				Normal milk (Becquerel and Vernois).		
Water	.	.	67·52	.	.	89 — 87
Solids	.	.	32·48	.	.	11 — 13
Fat	.	.	28·54	.	.	0·6 — 5·66
Sugar and extractive	}	.	0·75	.	.	2·5 — 5·9
matter		.		.	.	
Casein	.	.	2·74	.	.	3·9
Inorganic salts	.	.	0·41	.	.	0·05 — 0·33

(*Canst.*, 167.)

TROMMER confirms the opinion of Heynsius regarding the presence of albumen in the normal milk of the cow. (Schmidt, vol. 103, No. 7, p. 5.)

MONIER found that the casein and albumen in acidulated milk possess the power of removing the colour of cameleon; and upon this he has founded a method of estimating the quantity of these substances. Sugar-of-milk and butter have no effect upon the colour. The albumen, for example, he calculates by taking 10 c.c. of milk at a temperature of 45—50° C., adding to it a drop of acetic acid, which separates the casein and butter, filtering, and then adding his standard solution of cameleon. The author, in his second paper, gives a method for calculating volumetrically the quantity of starch in any solution.

MAJEWSKI found that the pure liquor amnii collected from the cow and the sheep is at first fluid and colourless. After standing, it becomes of a slightly opaque-yellow colour, and glutinous feel. The allantoid fluid is more or less of a brownish-yellow, according to the age of the embryo—something of the colour of urine. From the pig, it gives a deposit. Both fluids are alkaline; both contain sugar (not found in the human subject), albumen, and urea. ('Canst.,' 185.)

ON PARTICULAR ORGANS—LIVER, HEART, SUPRA-RENAL CAPSULES, ETC.

- M'Donnell.**—On the Physiology of Diabetic Sugar in the Animal Economy. Dublin Quarterly Journ. of Med. Science, August, 1859.
- Pavy.**—On Lesions of the Nervous System producing Diabetes. Proc. Roy. Soc., No. 35, p. 27.
- Lehmann.**—Ueber die Bildung des Zucker in der Leber. [On the Saccharine Function of the Liver.] (Schmidt's Jahrb., vol. 97, 1858, pp. 1—14.)
- Moreau.**—Expériences relatives à la glucogénie, &c. [Experiments on the Glucogenic Function.] (Gaz. Méd., May, 1858, p. 302.)
- Fuchs.**—The same, Oct., p. 630.
- Poiseuille et Lefort.**—De l'existence du Glucose dans l'organisme animal, &c. [On the Existence of Glucose in the Animal Body.] (Compt. Rend., 1858, April, pp. 241 and 279; March, p. 565; July, p. 112; Dec., p. 906.)
- Colin.**—De l'origine du sucre du chyle. [On the Origin of the Sugar in the Chyle.] (Compt. Rend., June, 1858, p. 1264.)
- Sanson.**—De l'origine du sucre dans l'économie animale. [On the Origin of Sugar in the Animal Body.] (Journ. de Physiol., p. 244, 1858.)
- Poggiale.**—Do. do., p. 549.
- Poggiale.**—Rapport sur le mémoire de M. Sanson. [Report on Sanson's Paper.] (Bullet. de l'Acad. de Méd., July, 1858, p. 953.)
- Moos.**—Untersuchungen ueber die zuckerbildende Function der Leber. [On the Saccharine Function of the Liver.] (Archiv f. Gemein. Arbeit., vol. iv, 1858, pp. 37—76. Canst., vol. i, p. 62.)
- Eschricht, Scharling og Hannover.**—Prüsafthandling tilstillet Selskabets physiske Klasse. [On Diabetes. The Origin of the Sugar.] Oversigt over det Kgl. danske Vidensk. Selsk. Fouhandlinger, 1857, No. 8. Canst., p. 62.
- Schottin.**—Ueber einige künstliche Umwandlungsproducte durch die Leber. [On the Artificial Formation of some Hepatic Substances.] Wund. Arch., part ii, p. 336, part 3. Henle und Meissner, p. 256. Canst., vol. i, p. 167.
- Benvenisti.**—Sulla formazione per metamorfosi regressiva dello zuckero e dell'amido, &c. [On the Retrograde Metamorphosis of Sugar, &c.] Annali univ., vol. clxvi, p. 160. Canst., p. 159. Scherer's report.
- Berthelot.**—Sur la transformation en sucre de divers principes immédiats contenus dans les tissus des animaux invertébrés. [On the Transformation of Sugar into different "Immediate Principles."] Compt. Rend., 1858, vol. xlvii, p. 227.

- Gluge.**—Notes sur le foie et le rein gras physiologique. [On Fatty Liver and Kidneys.] (Bullet. de l'Acad. de Bruxelles, 1858, pp. 293—295.)
- Nasse.**—Ueber einige Verschiedenheiten im Verhalten der Leber hungernder und gefütterter Thiere. [On the Difference in the Livers of Animals when Fasting and Digesting.] (Archiv f. Gemein. Arbeit., 1858, part 1, pp. 77—98. Henle and Meissner, p. 256. Canst., vol. i, p. 662.)
- Kottmeier.**—Zur Kenntniss der Leber. *Wurzburg*, 1857. (Chiefly upon the effects of ligaturing the hepatic vessels.) Canst., vol. i, p. 62.
- Arnold.**—Ueber the Gallenmenge, welche bei Hunden mit Gallenblasenfisteler im verhältniss zur art der Nahrung. [On the Effect of Food upon the Secretion of Bile.] (Die Physiol. Anstalt zu Heidelberg, pp. 91—98.)
- Mosler.**—Untersuchungen ueber den Uebergang von stoffen aus dem Blut in die Galle. [On the Passage of Substances from the Blood into the Bile.] (Virchow's Archiv, vol. xiii, pp. 29—46, 1858. Canst., vol. i, p. 62. Henle and Meissner, p. 256.)
- Kemp.**—Ueber die Function der Gallenblassenschleimhaut. [On the Function of the Mucous Membrane of the Gall-Bladder.] (Schmidt's Jahrb., vol. 97, 1858, pp. 281, 282. Canst., vol. i, p. 62.)
- Schlossberger.**—Analyse der galle des Wels. [On the Bile of the Whale.] Liebig's Annal., vol. cviii, p. 66. Canst., vol. i, p. 181.
- Luschka.**—Die Drüsen der Gallenblase des Menschen. [On the Glands of the Human Gall-Bladder.] H. u. Pf.'s Zeitschr., 3 Reihe, vol. iv.
- Oidtmann.**—Die anorganischen Bestandtheile der Leber und Milz und mehrerer anderen Drüsen. [On the Inorganic Constituents of the Liver, Spleen, and other Glands.] Von der med. Fakultät zu Würzburg gekrönte Preisschrift, *Linnich*, 1858. Canst., vol. i, p. 168.
- Joseph.**—Die Ringe und Klappen des Menschlichen Herzens. [On the Valves of the Heart.] Virchow's Arch., vol. xiv, pp. 244—270, 1858. Schmidt, vol. 103, No. 7, p. 12.
- Luschka.**—Ueber die Lage des vorderen Randes der Lunge. [On the Position of the Anterior Margin of the Lung.] Deutsche Klinik, No. 28, 1858. Canstatt, p. 24, vol. i.
- Muller.**—Ueber die chem. Bestandtheile des Gehirns. [On the Chemical Composition of the Brain.] II Abhdlg. Liebig's Annal., vol. cv, p. 361. Canst., vol. i, p. 168.

BLOOD-GLANDS.

- Philipeaux.**—Notes sur l'extirpation successive des deux capsules surrenales. [On the Extirpation of the Supra-renal Capsules.] (Compt. Rend., Feb., 1858, pp. 420—422.) Henle and Meissner, p. 256.
- Brown-Sequard.**—Nouvelles recherches sur les capsules surrenales. [New Researches on the Supra-renal Capsules.] (Compt. Rend., Dec., 1857, p. 1036. Journ. de Physiol., vol. i, pp. 360—373.)
- Vulpian.**—Sur les capsules surrenales. [On the Supra-renal Capsules.] (Gaz. Méd. de Paris, 1858, No. 24.)
- Vulpian.**—Sur les granulations graisseuses comme éléments morphologique normaux des capsules surrenales. [On the Presence of Fat as a normal element of the Supra-renal Capsules.] Gaz. Hebd., vol. v, No. 33.)

- Zellweger.**—Untersuchungen ueber die Nebennieren. [On the Supra-renal Capsules.] *Franenfeld*, 1858. Canst., p. 74.
- Fomeris.**—Sur les fonctions du corps thyroïd. [On the Function of the Thyroid Gland.] (*Gaz. Méd. Sardi.*, 1858, No. 12, p. 89. *Gaz. Hebdom.*, No. 41, p. 709.)
- Friedleben.**—Die Physiologie der Thymusdrüse in Gesundheit, und Krankheit. [On the Physiology of the Thymus Gland.] *Frankfurt*, 1858. Henle and Meissner, p. 257.
- Scherer.**—Ueber das Vorkommen des Guanins in der Pancreas-Drüse des Ochen. [On the Presence of Guanin in the Pancreas of the Ox.] *Verhandl. der kgl. bayer. Akademie der Wissenschaften und Virchow's Arch.*, 1859. Canst., vol. i, p. 168.
- Scherer.**—Xanthicoxyd, ein normaler Bestandtheil des thier. Organ. [Xanthic Oxide a normal constituent of the Animal Body.] *Sarkin u. Hypox. identisch.* *Liebig. Annal.*, vol. cvii, p. 314. Canst., p. 168.
- Strecker.**—Ueber das Sarkin. [On Sarkin.] *Liebig's Annal.*, vol. cviii, p. 129.
- Strecker.**—Ueber die Verwandlung des Guanins in Xanthin. [On the Transformation of Guanin into Xanthic Oxide.] *Liebig's Annal.*, vol. cviii, p. 141. Canst., p. 168.

M'DONNELL endeavours to give a simple and, at the same time, faithful account of the history and present condition of our knowledge of the origin of sugar, and the changes it is liable to in the animal economy. The paper, which occupies twenty-seven pages, will be found, he believes, of peculiar value to those whose multifarious professional occupations prevent them from searching out for themselves, from the immense mass of material which has during the last few years accumulated on this subject, what is substantially true, and what is incorrect.

PAVY says, that the sugar formed in the liver is due to a *post-mortem* occurrence, and that during life there is a force capable of overcoming the chemical tendency to a saccharine metamorphosis. Division of the spinal cord, as high up as between the second and third cervical vertebræ, does not produce saccharine urine. After poisoning an animal by strychnine, the circulation being maintained by artificial respiration, the urine becomes strongly saccharine. According to the author's views, it would appear that the medulla oblongata is the centre of the force preventing the formation of sugar in the living animal. Division of the cervical sympathetic, or of the ascending branches of the superior thoracic ganglion on both sides of the neck, occasions an intensely marked diabetes. The diabetes is still more marked after removal of the superior cervical ganglion.

Division of the sympathetic in the chest he several times found

to be succeeded by saccharine urine. Excision of the superior cervical ganglion in the rabbit, with division of the pneumogastri-
 cles above their gangliform enlargement, and close to their exit
 from the skull, is, he says, followed by diabetes.

LEHMANN gives a review of the recent researches on the gluco-
 genic function of the liver. MOREAU examined the portal blood of
 two dogs that had been restricted to a flesh diet during some time,
 and found sugar absent. Whereas, in the blood of the hepatic vein
 of one of them, sugar was detected. He accounts for the absence
 of sugar in the blood of the hepatic vein of the other, by saying
 that the animal was in a sickly condition. It being a known fact,
 that in sickly animals the liver secretes little or no saccharine
 matter.

POISEUILLE and LEFORT confirm the existence of sugar in the
 livers of fish, frogs, birds, and mammalia. The same authors
 also found it in the livers of two dormice during the period of
 hybernation. They further ascertained that the muscles of cats,
 dogs, sheep, calves, horses, oxen, and pigs contain a small quantity
 of sugar during digestion, but not during fasting. From experi-
 ments made upon dogs that had been fed during six weeks
 on flesh only, they conclude that the sugar found in the bodies
 of animals is not derived directly from the food, but actually
 manufactured by the liver. Moreover, they still hold to Bernard's
 theory, that it disappears in the lungs through an oxidizing
 process. COLIN does not agree with Poiseuille and Lefort as to
 the origin of animal sugar. Although he does not deny the exist-
 ence of the saccharine function of the liver, yet he says that a certain
 quantity of saccharine matter is absorbed into the system from the
 food, and that the sugar found in the lacteals and in the thoracic
 duct owes its origin entirely to the food. He made a quantitative
 analysis of the sugar contained in the chyle and in the lymph, and
 found—

Animal.	Chyle.	Lymph.
Ox . . .	0.106 per cent.	0.102 per cent.
Horse . . .	0.149 "	0.123 "
Ditto . . .	0.141 "	0.112 "
Foal . . .	0.158 "	0.158 "
Dog . . .	0.128 "	0.125 "
Ditto . . .	0.135 "	0.135 "

SANSON says that fresh healthy blood does not contain any sugar, but that after standing from four to eight hours exposed to the air, sugar can be detected in it. This is in consequence of fresh blood containing glucogene, which, by fermenting, becomes transformed into sugar. Sanson further states that the animal body has not the power of forming glucogene. That the herbivora obtain it directly from the vegetable kingdom; the carnivora indirectly through the flesh of the herbivora.

POGGIALE gives a report on the researches of Bernard and Sanson. He states that the Commission appointed by the Academy of Medicine, consisting of Bouley, Longet, and himself, after performing several experiments on different animals, came to the conclusion that the liver possesses the power of forming glucogene, irrespective of the kind of food. That it is formed in greatest quantity, however, when the diet is vegetable. They agree still further with Bernard, in saying that glucogenic matter holds a middle place between starch and dextrine.

Moos made a quantitative analysis of the sugar in the livers of healthy rabbits and dogs, and compared it with the quantity found in the livers of the same species after section of the pneumogastric nerves. His results are confirmatory of the previously known fact, that the quantity of sugar in the liver diminishes rapidly, and finally disappears, after section of the cervical pneumogastric. He further found that galvanism applied to the spinal cord of frogs renders them diabetic, while at the same time it increases the quantity of urine. He also states that whatever increases the action of the sympathetic, especially its cervical portion, augments the formation of sugar in the liver. The quantity of sugar in the liver fluctuates greatly. During digestion it is at its maximum; during fasting at its minimum. In the livers of pregnant rabbits the quantity is small, and it is frequently entirely absent in those killed by poison. The food which tends most to increase the quantity of sugar in the livers of rabbits is bread, potatoes, and boiled starch. NASSE says that glucogene appears in the cells of the liver in the form of small granules.

The Commission appointed by the Danish Academy to examine SCHIFF's memoir on Diabetes, consisting of Hannover, Eschricht, and Scharling, report that the paper shows—1st. That sugar is actually formed in the liver, and not collected there from other

organs. 2d. That the sugar comes from the transformation of a substance resembling starch (glucogene), which substance can be detected by means of the microscope in the cells of the liver. The transformation is caused by an animal ferment. 3d. Artificial diabetes, from injury to the nervous system, is the result of hyperæmia. The blood-vessels being widened either from the paralysis of one set of nerves, or increased stimulus of another—narcotic poisons, galvanism, &c. 4th. Neither section of the vagi, nor injury to the spinal cord, arrests the secretion of sugar in the liver. The latter operation, on the contrary, increases it. 5th. Hepatic and grape-sugar are identical.

SCHOTTIN found that liver freed from blood, connective tissue, and well washed—1. Transforms cane- into grape-sugar in from eight to ten hours, and in the course of other twenty-four hours into lactic acid. 2. Changes fibrin into leucin, and a small quantity of tyrosin. 3. If, after the sugar has fermented, a few drops of oil are added to the liver and well shaken, the oil disappears in a few hours, producing at the same time a second fermentative process. He confirms Lehmann's statement regarding leucin not being found in the liver till some hours after death.

BENVENISTI has already, in a former paper, declared that the sugar found in the animal economy comes from amylaceous food. He imagines, too, that starch, under the influence of saliva, can be changed into fat.

BERTHELOT says that the organic part of the skeleton of the vertebrata chiefly consists of a nitrogenized substance, insoluble in cold water; but soluble in the alkalies, and nearly allied in its chemical characters to albumen. As is known, this material yields gelatin by prolonged boiling. On the other hand, the organic part of the skeleton of the invertebrata is quite different from anything resembling gelatin. Its nature varies; sometimes it is like the cornea, at other times it is closely allied to the substances found in the vegetable kingdom—cellulose. To it he gives the name of *tunicine*. This substance is transformed by strong sulphuric acid into sugar.

GLUGE claims the priority of observing that a fatty condition of the liver is a normal state in young animals. Nasse calls attention to the interesting fact that the weight of the liver varies with the

period of digestion. The livers of fasting animals, he found, weigh much less than those of the same species of animal killed during the time of digestion.

ARNOLD has repeated his researches on the effect of different kinds of food on the quantity of bile. He found that a dog, for every two pounds of its weight, secreted in twenty-four hours—

Food.	Bile.
57 to 60 grammes black bread	9.0 grammes.
96 grammes fresh meat	11.6 „
Mixed diet	10.0 „
While fasting	9.0 „

The solids in the bile in the case of the bread diet weighed 0.256 grammes.

In the flesh diet 0.541 „

In the fasting 0.260 „

Arnold's experiments were made on dogs with biliary fistulæ.

MOSLER injected from five to ten grammes of grape-sugar into the jugular vein of a dog, and failed to detect it either in the urine or in the bile. When twenty grammes were injected into a vein it reappeared in the urine, but not in the bile. The same result was obtained after the injection of thirty or forty grammes of sugar. It was not until from sixty to eighty grammes were injected that it reappeared in the bile. With cane-sugar forty grammes were found sufficient to impregnate the bile. One gramme of iodide of potassium injected into the blood can afterwards be detected in the bile, whereas ten grammes of nitrate of potash cannot. Sulphate of copper, when taken into the stomach in the form of pill, appears in the bile in four days. Calomel, when given in doses from one and a half to three and a half grammes, cannot be detected in the bile; neither is the quantity of bile secreted thereby augmented. Benzoic acid, when given by the mouth, is not afterwards found in the bile.

KEMP finds that the mucus of the gall-bladder causes neutral bile to become alkaline, and give a deposit with weak acetic acid.

FUCHS injected bile into the veins of animals with the intention of giving them jaundice; but it made the animals ill without producing that result. He believes, therefore, that jaundice is not the effect of a reabsorption of bile, but a non-secretion of it.

SCHLOSSBERGER found the bile of the shad-fish of a yellow-brown colour and peculiar fishy smell. On analysis (compared with the python's bile) it gave in 100 parts—

	Shad-fish.	Python.
Water	94.48	90.42
Biliary acid salts . . .	3.63	8.46
Fat	0.23	0.03
Mucus and colouring matter	1.48	0.89

According to LUSCHKA'S observations there are from six to fifteen grape-shaped glands in the mucous coat of the human gall-bladder. They consist of a tunica propria, surrounded by bands of areolar tissue. No epithelium is found lining their inner walls, but their cavities are filled with fine granular *débris*.

OIDTMANN analysed the liver, spleen, and several other organs, the results of which analyses Scherer (in his review of the monograph) has given in the following table (*see next page*).

Table of analyses of liver and spleen.

In 100 parts were of	Male maniac, æt. 56.		Female maniac.		Man, æt. 58. Marasmus senilis.		Syphilitic infant, æt. some hours.		Two crows.
	Liver, 1495 grammes.	Spleen, 198 grammes.	Spleen, 115 grammes.	Liver, 470 grammes.	Spleen, 175 grammes.	Liver, 150 grammes.	Spleen, 89.5 grammes.	Livers, 110.4 grammes.	
Water	74.031	75.031	77.480	62.593	69.387	82.504	80.007	75.200	
Organic matter	24.866	24.232	21.569	36.340	30.118	16.587	19.325	24.155	
Inorganic matter	1.103	0.736	0.950	1.066	0.494	0.908	0.667	0.644	
Chlorine	0.0285	0.0040	0.0125	0.0227	0.0074	0.0380	...	0.1054	
Phosphoric acid	0.5535	0.1995	0.1803	0.0592	0.0172	0.3867	...	...
Sulphuric acid	0.0102	0.0187	0.0137	0.0038	...	0.0081	...	0.0259	
Silicic acid	0.0030	0.0013	0.0069	0.0013	0.0051	0.0016	...	...
Potash	0.2783	0.0707	0.1664	0.6826	0.3207	0.3126	...	0.3168	
Soda	0.1601	0.3263	0.3356	0.0412	0.0049	0.1014	...	0.0028	
Lime	0.0399	0.0551	0.0694	...	...	0.0029	...	...
Magnesia	0.0023	0.0036	0.0097	...	...	0.0005	...	...
Iron	0.0303	0.0536	Fe ₃ O ₃ .PO ₅	...	...	Fe ₃ O ₃ .PO ₅	...	...
Earthy phosphates and iron . . . . .	...	...	0.1548	0.2491	0.1373	0.0490	...	0.1665
Oxide of manganese	0.0011	0.0006	...	...	...	...	...	...
Oxide of copper	0.0006	0.0005	0.0003	...	...	...	...	...
Oxide of lead	0.0001	...	0.0004	...	...	...	...	...
			0.00026	...	...	...	...	...

Oidtman, from these and other results, drew the following conclusions : 1. That the inorganic constituents of glands increase with the age of the individual. 2. The watery constituents are in inverse proportion to the age. 3. Disease alters the quality of both water and inorganic salts. 4. In the liver and muscles lime is found in greater quantity than soda. 5. In the spleen (in consequence of the quantity of blood) there is more potash than soda. 6. Chlorine exists in small quantity in both liver and spleen. 7. The liver contains more phosphoric acid than the spleen. 8. The lime is in small, but the magnesia in still smaller quantity. 9. The proportion of iron is large. 10. Copper and lead are both present, but not always.

In his paper on the valves and apertures of the human heart, JOSEPH says that all four apertures—the two venous as well as the two arterial—have in general the same structure, being composed of elastic fibro-cartilaginous tissue; have almost the same form; but are of various sizes. The valves are likewise composed of elastic fibro-cartilage. This article is almost the same as the the author's thesis ('De Anatomia Cordis,' &c., 1857).

It is generally thought that the anterior margin of the right lung extends to the left edge of the sternum. LUSCHKA says that opposite the insertion of the second rib it reaches three quarters across the sternum; but from that point downwards it gradually ceases to extend so far, and it only *occasionally* reaches as far as the left margin of the sternum.

MULLER says that on boiling cerebrin with hydrochloric acid he obtained first a reddish-violet colour, and then a brown resinous substance, insoluble in both acids and alkalies. With nitric acid it gave a yellow colour and a white fatty-looking body. With cold sulphuric acid, a dark-red colour, and a yellow flocculent substance. Cerebrin is not acid.

PHILIPPEAUX has extended his experiments on animals, and found that not only can both supra-renal capsules be removed without any fatal result, but that even the spleen and the thyroid glands may be extirpated from the same individual (the rat), without causing the death of the animal.

BROWN-SEQUARD attempts to explain away the success attending the operations of Philippeaux and Harley, by saying that these gentlemen only operated on animals having no pigment deposit in their tissues (albinoes), and consequently those which, according to

Brown-Séquard's idea, do not require supra-renal capsules. An explanation since shown to be quite untenable, as Philipeaux and Harley were equally successful in their experiments on coloured animals.

VULPIAN again calls attention to the peculiar red colouring matter of the medullary substance of the supra-renal capsules. He has not yet been able to isolate it; but he finds that it is not contained in the cells (Virchow), but in the blood. It is soluble in alcohol. The colour is not so marked in man as in sheep, oxen, &c. In diseased capsules it is occasionally entirely absent, and in those of the foetus it is very slight.

In his other paper VULPIAN confirms the statement of previous writers concerning the presence of fat-granules in healthy supra-renal capsules.

ZELLWEGER analysed chemically the supra-renal capsules, and found that in the new-born child they contain in 100 parts—77·4 water, 22·8 organic matter, and 0·4 ashes. The ox's, on the other hand, contains in 100 parts—72·1, 25·6, and 2·3; the pig's—72·2, 25·7, and 2·1. The ashes consist chiefly of phosphates.

FOMERIS revives the opinion that the thyroid gland is a diverticulum for the excess of the cerebral supply of blood. This, he says, is particularly the case during sleep, at which time the gland becomes so distended with blood that it increases considerably the circumference of the neck.

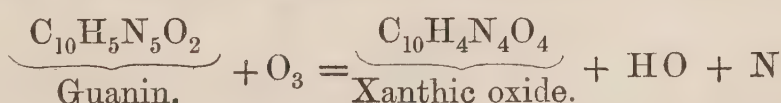
According to FRIEDLEBEN the thymus increases in size up to the time of puberty; although after birth up to that time its size to that of the body is relatively less. From puberty to manhood it is stationary; and after this it begins to disappear. Friedleben says the same thing occurs in the lower animals. Like Bischoff, Friedleben observed it to be occasionally absent in well-developed children. The juice of the thymus, Friedleben says, has always an acid reaction—which disappears when the gland begins to putrefy—and the ashes left after incineration are only in part soluble in water. They consist of chlorides, phosphates, and sulphates of soda, potash, lime, and magnesia. The organic matter is albumen, gluten, sugar, fat, colouring matter, and lactic acid. The quantity of ash is greater in the calf than in the ox; the thymus of a calf, ten days old, contains 10·226 per cent. of inorganic matter; whereas that of an ox, eighteen months old, has only 3·317 per cent. The quantity of water is also greater in the thymus of the calf. A

rich diet, of albuminous, fatty, and saline food, increases the size of the thymus and the amount of its secretion; but an entirely fatty diet causes it to disappear. Starch diet first increases the secretion, then diminishes it, and at length causes atrophy of the gland, as happens in starved animals.

Friedleben found that extirpation of the gland is not fatal to young dogs; and that when both the thymus and spleen are extirpated the preparation of the blood and the nourishment of the body are defective; so much so that after a time all the animals operated on die of a species of inanition. When the thymus alone is removed the spleen increases in size. The urine is also found to be diminished in quantity.

SCHERER detected guanin in the pancreas of the ox. He says that there can be no doubt of the substance found in the pancreas being the same as that obtained from guano,—1. From the elementary analysis. 2. The characteristic combination with hydrochloric acid. 3. The insolubility in pure water. And lastly, the reaction with nitric acid and potash.

STRECKER found in the juice of flesh a substance which he named *sarkin* ($C_{10}H_4N_4O_2$); but which is in reality the same as Scherer found and previously described under the name of hypoxanthin. The test for it is,—when heated on a spatula with weak nitric acid, it forms a yellow substance, which, on the addition of potash, gives a reddish-yellow solution. This solution on being evaporated to dryness leaves a fine dark purple-red matter. Scherer and Strecker are now both of the opinion that hypoxanthin and xanthic oxide are identical. The latter substance Scherer found in normal urine, liver, spleen, pancreas, brain, and muscle; and in the blood in disease. Strecker, in his last communication, says that guanin can be transformed into xanthic oxide through the agency of nitric acid.



ON THE GENITO-URINARY ORGANS.

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- Leconte.**—Procédé de dosage de l'urée par l'hyperchlorite de soude. [On the Method of Calculating the quantity of Urea by means of the Hypochlorite of Soda.] (Compt. Rend., vol. xlviii, p. 237.)
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- Gigon.**—De l'infériorité et de l'insuffisance de l'acide pyrophosphorique comme reactif de l'albumine normale. [On the Inferiority of Pyrophosphoric Acid as a Re-agent for Albumen.] (L'Union Méd., No. 12, 1858.)
- Klingner.**—De urinæ humanæ partibus. [On the Composition of the Human Urine.] *Berlin*, 1857. Contains nothing new. (Valentin.)
- Geist.**—Beschaffenheit des Harns bei Greisen. (Froriep's neue Notiz., vol. i, 1858, pp. 353—357.) An extract, on the Composition of the Urine, out of the author's work on Old Age. (Valentin.)

- Heynsius.**—Ueber die Entstehung des Ureums. [On Uræmic Poisoning.] (Froriep's neue Notiz., vol. ii, 1858, pp. 194—198, and 209—212.)
- Vulpian.**—Sur le contractilité des urétrés. [On the Contractility of the Ureters.] (Gaz. Méd. de Paris, July, 1858, p. 428.)
- Cazenave.**—De l'urèthre. [The Urethra.] Jour. de Méd. Bordeaux, 2me série, No. 7, 1858. Gives apparently nothing new. (Valentin.)
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HASSALL says that the object of his little work is to afford an explanation, as simple as possible, of the physical properties, composition, and uses of the urine; of the function of the kidneys; and, more especially, of the principles of treatment of the chief urinary disorders. The volume is illustrated with twenty-four plates of the various deposits, organic as well as inorganic, met with in the urine. A few of the plates are copied from Robin and Verdeil's 'Atlas;' the remainder are original.

Hassall states that unwholesome and adulterated food operates as a cause of renal disease—1st. By many of the substances employed in the adulteration of food being in themselves injurious to health, by impairing and deranging the digestive function. 2d. By reducing the dietetic value of the articles consumed; examples of these are furnished in bread, milk, and coffee. Another fruitful predisposing cause to renal disease are unhealthy occupations, especially employments entailing the working in ill-lighted, ill-ventilated, over-crowded rooms. He says, too, that the mere density of the urine affords an indication of treatment, as it is mainly due to the presence of an excess of urea or sugar. The former denoting an undue waste of tissue, the latter the existence of a special disease. An extremely acid condition of the urine is in general dependent on the nature of the food; but mainly on some error of digestion. A persistent alkaline condition of the urine, on the other hand, is usually not so much dependent on a faulty digestion as on general or local debility.

As regards the nature and treatment of cystine deposit, our author says, that as it contains more than 25 per cent. of sulphur, and thereby bears a close resemblance to taurine, it is probable that its presence in the urine is due to some disorder of the hepatic

function. In the cases recorded, however, such a relationship has not been traced. Bird thought that it was a product of the scrofulous diathesis, and some others look upon it as hereditary. It frequently occurs in the urine of chlorotic women. The best plan of treatment is to correct any disorder of the assimilative functions, and attend to the general health.

HAUGHTON derives from experiment the following table, showing the relation between the specific gravity of healthy urine, and the amount of urea contained in it :

Specific gravity.	Grains urea per ounce of urine.	Specific gravity.	Grains urea per ounce of urine.
1010.0	...	1020.0	12.2
1010.5	...	1020.5	12.4
1011.0	...	1021.0	12.6
1011.5	...	1021.5	12.9
1012.0	...	1022.0	13.1
1012.5	5.0	1022.5	13.3
1013.0	5.7	1023.0	13.4
1013.5	6.6	1023.5	13.5
1014.0	7.2	1024.0	13.7
1014.5	7.8	1024.5	13.8
1015.0	8.4	1025.0	13.9
1015.5	8.8	1025.5	13.95
1016.0	9.2	1026.0	14.0
1016.5	9.6	1026.5	14.0
1017.0	10.0	1027.0	14.0
1017.5	10.4	1027.5	14.0
1018.0	10.9	1028.0	14.0
1018.5	11.2	1028.5	13.95
1019.0	11.5	1029.0	13.9
1019.5	11.9	1029.5	...

SELLER estimates the acidity of the urine by observing how much is required to neutralize a solution of caustic soda of given strength. He uses a capillary syphon, which delivers the fluid, drop by drop, into a measured quantity of urine. The standard solution should be of such a strength that it will neutralize an equal quantity of water containing 1 per cent. of dry oxalic acid. He recommends the ordinary method of collecting uric acid from urine ; but proposes a rough way of estimating its quantity, by comparing it with a standard heap of the same substance. For the estimation of urea he recommends Liebig's method.

CARTER gives an historical account of the colouring matter of the urine, but omits mentioning uro-hæmatin, the only pure pig-

ment that has been obtained from it.¹ He relates some cases that occurred in the Edinburgh Infirmary.

FLEMING observed that the urine of a child, suffering from retention during an attack of remittent fever, resembled, in colour and consistence, substantial chicken-broth, was feebly acid, and had a specific gravity of 1018-20. It became a tremulous jelly on cooling; cleared on heating; but again became turbid when the boiling point was reached. The addition of nitric acid rendered it again transparent, and caused it to effervesce with the disengagement of ammonia. It contained no albumen. The child recovered.

HICKS recommends the employment of rennet as the best means of detecting kiesteine in urine (two teaspoonfuls of rennet to three ounces of urine). The advantages of the rennet, he says, are—1st, saving of much time; 2d, increase of the deposit; 3d, the deposit is nearly free from phosphates; and 4th, nearly free from smell. Rennet has no action on healthy, diabetic, albuminous, or phosphatic urine. If, to the lower portion of urine containing the deposit of kiesteine, a few drops of a strong solution of ammonia be added, and heat applied, the deposit is transformed into a semimucus mass, causing the urine to become almost tremulous.

BEALE says that the principal points advanced in his communication may be summed up as follows:—1. That the dumb-bell crystals are formed in the uriniferous tubes, while the octohedral crystals of oxalate of lime are not deposited in the kidney at all, and in many cases not until the urine has left the bladder. 2. That under certain circumstances the dumb-bell crystals, if retained in the tubes of the kidney, become aggregated together, and form the nucleus of a calculus. 3. The nuclei of oxalate of lime, of uric acid, of urate of ammonia, phosphatic calculi, &c., may be composed of dumb-bells. 4. Dumb-bell crystals, like urinary calculi, occur at all periods of life. 5. The chemical composition of the dumb-bell is, doubtless, the same as the oxalate of lime calculus, of which it is but an early stage, and consists of oxalate, and not oxalurate of lime. 6. As it has been shown that dumb-bells may grow into small calculi, it is very important to promote their expulsion from the kidney as soon as possible.

In his paper on the kidney Beale says that his researches are confirmatory of Virchow's views, viz., that the *vasa recta*, in many

¹ 'Verhand. Phys. u. Med. Gesellsch. zu Wurzburg,' Bd. v, 1854; and Erdmann's 'Journ.,' vol. xlv, part 5, 1855.

cases, come off directly from branches of the artery, so that the blood in them does not necessarily pass through the Malpighian bodies. Beale further says that there are two, three, or even four, branches of the artery running close to each other for some distance, which at last terminate in the straight vessels, or anastomose with other branches. In cases of obstruction of the trunk of an artery the circulation through its tributaries will still be maintained. And in cases of disease when the circulation through the cortical portion of the kidney is interfered with, part of the blood passes through the straight vessels in the cones and is returned by the veins. Our author dissents from Virchow's opinion regarding the formation of tube-casts only in the straight, and not in the convoluted portion of the uriniferous tubes, and is more inclined to adopt Johnson's view of their formation taking place in the latter.

RINGER made his observations on two untreated cases of ague—one of quotidian, and one of tertian—in University College Hospital, under the care of Professor Parkes; and they are recorded in a series of charts and tables, showing the following particulars: The temperature of the body commenced to rise from forty-five to ninety minutes before any change was perceived by the patient, and continued to rise during the whole of the cold stage and during part of the hot; it fell during the latter part of the hot, and the whole of the sweating stage. The severity of the fit could be determined by the character of the rise, whether rapid or with oscillations, and by the variations of the temperature during the several stages; but the charts of temperature, and the comments given at length in the paper, must be consulted in order to exhibit this clearly. The urea was found to increase during the fit, as stated by Traube. The increase commenced before the feeling of cold, and before indeed the rise in the temperature. The maximum increase in the amount of urea was at the end of the cold and at the commencement of the hot stage; and from this point the quantity fell during the hot and sweating stage. There were variations in the amount of urea corresponding to variations in temperature, but often preceding them a little. The amount of increase was considerable (from 200 to 500 per cent.), and was definite. The excretion of urea was not influenced by the excretion of urinary water. The chloride of sodium passed was also increased, and varied with the temperature, but in a much less degree. The increase was at its maximum at the same period as the urea. The

urinary water was also definitely increased, and this was quite independent of the quantity of fluid drunk. Much more water was drunk than was excreted. The author next relates the observations made upon the same patient when quinine was given. A scruple taken before the fit, and just as the temperature commenced to rise delayed the rise for an hour; but had no other effect on the temperature on that day, and none on the urea, chloride of sodium, and water. Another scruple given at night, after the fit, cured the patient as far as the subjective symptoms were concerned; but did not prevent the increase in the urea and chloride of sodium occurring at what would have been the fever hour. An effect first noticed by Redenbocker.

In the case of tertian ague almost similar results were obtained. The rapidity of the pulse closely corresponded with the temperature. In addition to these cases of ague, the author subjoins one of hectic fever, occurring in a phthisical patient under the care of Dr. Walshe. The subjective phenomena were similar to those of ague, there being a cold, hot, and sweating stage. The temperature followed the same rules as in ague, and there was also an increase in the urea and chloride of sodium during the cold and hot stages. There was this difference, however; the urea fell before the rise in the temperature commenced, and increased less after it than in ague.

NEUBAUER and VOGEL's work on the urine is highly thought of in Germany. The third edition is much improved; it includes all the newest researches, and a chapter on the chemical analysis of urinary calculi.

LIEBIG obtained from the urine of a dog that had been, during a length of time, fed solely upon meat a large quantity of creatine. The urine, mixed with milk of lime, had stood nearly six weeks, and, as is known, under these circumstances all the creatinine must have become changed into creatine. The same urine, when fresh, yielded only creatinine. The dog, when fed on fat, passed cynuric acid in the urine. The formula of this acid is $C_{16}NH_7O_5$.

SCHIFF says the best test for uric acid is freshly precipitated carbonate of silver, a little of which will detect 1-47,500th grm. of uric acid by the gray colour which it forms.

VON BABO and MEISSNER repeat Leconte and Bonnet's statement, that uric acid in healthy urine reduces the oxide of copper.

HALLWACHS' and WEISSMANN's papers are prize essays. Although their researches on the origin of hippuric acid in the urine of

herbivora were made independently, yet both as regards the manner in which the experiments were conducted and the results obtained, there is a general resemblance. The method of extracting the hippuric acid adopted by Weissmann is as follows:—From 10 to 20 c.c. of urine is evaporated nearly to dryness, after cooling from five to ten drops of concentrated hydrochloric acid are added, and then an extract of the whole is made with pure ether, on evaporating which more or less coloured crystals of hippuric acid are obtained. The urine of man contains an excess of hippuric acid after vegetable diet, whereas after animal diet the acid nearly disappears. The average daily amount of hippuric acid Weissmann gives at 2.170 grms., and on pure animal diet it fell to 0.765 grms. He found that after living for seven days on nothing but bread and water his urine contained less hippuric acid than when on animal diet. He concludes from the above, and some experiments that he made on typhus patients, that the acid is not only derived from the food, but also from the protein compounds of the animal body. In three cases of diabetes the quantity of hippuric acid was very considerably diminished. Mack says, as Roussin found, that horses when standing in the stable pass very little hippuric acid and a large quantity of urea, whereas while working they pass little urea and a large quantity of hippuric acid, it is not improbable that the acid comes from an oxidation of the urea. This theory, however, is contrary to known facts, namely, that urea is the least oxidizable product of the animal-tissue metamorphosis. When urea is decomposed it is transformed into ammonia and carbonic acid.

Hallwachs experimented upon himself and a dog with succinic acid, and found that after taking it in quantity it neither reappeared in the excrements nor in the urine, nor did it in any way augment the excretion of hippuric acid.

KLETZINSKY examined the excrements of the chameleon, and says that he found therein uric acid, traces of urate of ammonia, small quantities of oxalates and phosphates, traces of biliphain and biliary acids, together with xanthin and prophylamin. Scherer regards the presence of the two latter as very problematical.

KÖHLER found that allantoin is present in the urine when the respiration is imperfect.

NEUBAUER shows how oxalic acid is one of the indirect products of the retrograde metamorphosis of tissue and protein food. It is

increased in the urine after—1st. Vegetable food. 2d. Effervescing wines and bicarbonates of the alkalies. 3d. Salts of the vegetable acids. 4th. Highly nitrogenized food (Beneke and Bird). 5th. Constantly in cases of imperfect respiration—emphysema (Lehmann). In convalescence from severe diseases—typhus, &c. The chief cause of the presence of oxalates in the urine is the imperfect oxidation of uric acid.

CRUSE compared the relative value of the “fermentation” and “Fehling’s method” of quantitatively estimating sugar, and came to the conclusion that the one method is as good as the other.

BRUECKE calls attention to the fact that nearly all urines from healthy men become slightly brown when boiled with potash. Also, that when the sulphate of copper and potash test is employed, there is in general a slight browning, thereby indicating the presence of a small quantity of sugar. Bruecke says that the existence of sugar in healthy urine can be put beyond a doubt by adding to every 10 c.c. of urine 54 c.c. of strong alcohol, filtering, and adding to the filtrate a little spirit made slightly alkaline with potash. After standing twenty-four hours, when the liquid is decanted, the bottom and sides of the glass will be found covered with crystals. These crystals, on being dissolved in water and tested, will be found to be grape-sugar.

LOWENTHAL proposes the use of a salt of iron instead of one of copper, as being a more delicate test for the detection of sugar. It has no advantage over copper, however, and it has disadvantages which the copper does not possess.

The object of VIERRODT’s paper seems to be to correct some remarks made by Radicke on Kaupp’s researches upon the effect of salt on the constituents of the urine.

SICK studied upon himself the variations in the amount of phosphoric acid in the urine. He took different quantities of phosphate of soda in the twenty-four hours, and afterwards examined the urine, in order to see if all the salt taken reappeared in the urine; and in what form. He began by taking one gramme, and gradually increased the dose to three grammes. The result of the experiment led him to believe that all the phosphoric acid taken is excreted by the urine, and in the same form; that is to say, it does not appear in the urine as an earthy, but as an alkaline, phosphate.

HAMMOND’s experiments were also made upon himself. He divided the day into three parts. The first from 7 a.m. to 1 p.m.;

the second from 1 p.m. to 10 p.m.; the third from 10 at night to 7 in the morning. He found that he passed the greatest amount of phosphates in the second part, the least during the night, and the medium quantity from 7 in the morning to mid-day. After muscular exercise the quantity of phosphates increased, as well as the amount of the urine. The specific gravity of the urine slightly diminished. On taking phosphates internally he obtained similar results to Sick.

PORCHER says that the urine, in cases of yellow fever, contains neither urea nor uric acid; but, on the other hand, is often albuminous.

SCHERER says, that the methods adopted by KLETZINSKY for estimating the quantity of hypochlorites and hyposulphites in the urine cannot be depended upon, and that consequently Kletzinsky's results are of no value. KLETZINSKY says, that after taking benzoic acid, the urea is diminished to $2\frac{1}{2}$ grammes in the twenty-four hours, and the hippuric acid increased to 9.5 grammes.

LECONTE employed Davy's method of estimating the urea by means of the hypochlorite of soda, and has given an explanation of the process. The urea is decomposed by the hypochlorite even in the cold, but much quicker when gentle heat is applied. $C_2H_4N_2O_2 + 6(NaO, ClO) = 6NaCl + 2CO_2 + 7HO + 2N$.

The carbonic acid remains in solution, and the nitrogen is set free. Although 0.10 gram. urea ought to yield 37 c.c. of nitrogen, yet Leconte never obtained more than 34 c.c. Leconte, as Scherer justly remarks, has forgotten to mention that Davy proposed and published the above method of estimating urea some years ago.

GIGON states that healthy urine always contains a small quantity of albumen, and that its presence has been hitherto overlooked, in consequence of the tests employed for its detection not being sufficiently delicate. BECQUEREL replies that chloroform, the agent used by Gigon for the detection of the albumen in the urine, is a test not to be depended on, and that the precipitate obtained by it is composed of mucus and organic matter, there being not a trace of albumen in normal urine. Gigon again repeated his experiments more carefully, and in the above-mentioned paper shows that his first conclusions are correct, and that Becquerel errs in supposing that pyrophosphoric acid is a more delicate test for albumen than chloroform. On the contrary, he says that in delicacy it is not superior either to nitric acid or tincture of galls. Moreover,

Gigon shows that urine, from which all the mucus has been removed, acquires a milkiness with chloroform, and still further, that urine which never contained any mucus at all, gives the same reaction. He obtained the latter by taking it directly from the pelvis of the kidney of the living animal. The urine of the ox, after the mucus has been removed by filtration, gives no precipitate with chloroform. To prove that the precipitate from human urine is really composed of albumen, Gigon collects, dries, and afterwards redissolves it in acetic acid. The solution gives the reaction of albumen with ferrocyanide of potassium.

The quantity of albumen daily passed in healthy human urine, the author says, is about 2·6 grammes.

HEYNSIUS says that normal urine contains no albumen. On account of the contents of the tubuli uriniferæ being acid. The urine, he imagines, becomes albuminous as soon as it is alkaline.

VULPIAN confirms the existence of a peristaltic action in the ureters. His experiments were mostly made upon animals rendered insensible by woorara. The peristaltic action continues even after the ureter is separated from the kidney, which proves that it is not the stimulus of the urine which calls it into action.

BARKOW's anatomical researches on the human urinary bladder, together with his observations on the male and female urethra, are, unfortunately, too long for abstract.

GIRALDES describes a small, glandular-looking organ in the spermatic cord, near to where the tunica vaginalis propria is reflected to form the serous sac. It does not communicate with the spermatic duct. He found the organ in children as well as in adults, and names it "corps innominé."

ON THE PHYSIOLOGICAL ACTION OF CERTAIN POISONS.

Weston.—On the Poison of the Common Adder. *Lancet*, 21st May, 1859, p. 522.

Livingstone.—Sur la Tsétsé. [On the Tsétsé.] *L'Institute*, No. 1296, p. 364.

Waller.—On the Means by which the Actiniæ kill their Prey. *Proc. Roy. Soc.*, No. 34, p. 722.

Harley.—On the Treatment of Tetanus by Woorara Poison. *Lancet*, 1st Oct., 1859, p. 345.

Wells (Spencer).—Three Cases of Tetanus in which Woorara was used in the Treatment. *Med. Times and Gaz.*, 3d Dec., 1859, p. 564.

Broca (Paul).—Sur le traitement du tétanos par le Curare. [On the Treatment of Tetanus by Woorara.] *Gaz. des Hôpitaux*, Oct. 29th and Nov. 3d, 1859.

- Pelikan und Kölliker.**—Untersuchung über die Einwirkung einiger Gifte auf die Leistungsfähigkeit der Muskeln. [On the Action of certain Poisons on the Muscles.] Verhandl. der Würzburger physikal.-medizin. Gesellsch., 1858. Canst., vol. i, p. 104. Schmidt, Vol. 101, No. 1, p. 35.
- Kölliker.**—Zehn neue Versuche mit Urari. [On Woorara.] Siebold u. Kölliker's Zeitschr., vol. ix, 1858, pp. 434—438. Schmidt, No. 1, p. 35.
- Haber.**—Quam vim venenum Curare exerceat in nervorum cerebro-spinalium systema. 8vo. *Vratislaviæ*, 1857. [The Action of Woorara on the Nerves.] Schmidt, No. 1, p. 35. Canst., p. 104.
- Kölliker.**—Einige Bemerkungen zur Geschichte der physiolog. Untersuchungen über das Urari. [Physiological Experiments with Woorara.] Verhand. Würzburg Ges., January, 1858, pp. 1—3.
- Hoppe.**—Versuche über die Wirkung des Urari. [The Action of Woorara.] Wien. Zeitschr. der Gesellschaft der Aerzte, 1858, pp. 1—66. Froriep's neue Notizen, vol. iv, 1858, pp. 81—83. Canst., vol. i, p. 104.
- Hoppe.**—Die spontane Erholung der Nerven und Muskeln vergifteter Thiere nach der Section. [The Recovery of the Nerves and Muscles after Section, in Poisoned Animals.] Allgemeine medicin. Centralzeitung, Oct., 1858, No. 87, pp. 689—691. Canst., p. 104.
- Vulpian.**—Observations physiologiques faites sur des animaux empoisonnés par le curare et soumis à la respiration artificielle. [Artificial Respiration in Poisoning with Woorara.] Gaz. Méd., July, 1858, No. 27, p. 429.
- Claparede.**—De l'action physiologique du curare. Biblioth. Universelle de Genève, nouvelle période, vol. iii, 1858, pp. 25—62. [A review on the Action of Woorara].
- Pelikan.**—Actions physiologiques de l'Upas Anthiar et de l'Anthiarine. [On the Anthiar and Anthiarine Poisons.] Gaz. Méd., March, 1858, No. 13, p. 201.
- Kölliker und Pelikan.**—Physiologisch-toxikologische Untersuchungen über die Wirkung des alkoholischen Extractes der *Tanghinia venenifera*. [Experiments with the Alcoholic Extract of the *Tanghinia Venenifera*.] Verhandl. der physikal.-medizin. Gesellsch. in Würzburg, vol. ix, 1858, pp. 33—43. Canst., p. 104.
- De Kiedrowski.**—De quibusdam experimentis, quibus quantam vim habeat acidum hydrocyanicum in nervorum systema cerebrospinale atque in musculos systematis vertebralis probatur. [On the Action of Hydrocyanic Acid.] 8vo. *Vratislaviæ*, 1858. Canst., p. 104.
- Funke.**—Zur Kenntniss der Wirkung des Urari und einiger anderer Gifte. [On the Action of Woorara and some other poisons.] Ber. Sachs. Gesel. d. Wiss., ch. i, 1859. See also Funke's Report. Schmidt, Vol. 101, No. 1, p. 35.
- Vulpian.**—Observations de grenouilles empoisonnées par des émanations animales. (Gaz. Méd. de Paris, No. 32, p. 509, 1858.) [Observations on Frogs Poisoned by Animal Exhalations. Already known.—Valentin.]
- Joseph.**—Hydrargyrum bichloratum corrosivum quid in respiratione cordisque actione efficiat. [On the Physiological Action of Corrosive Sublimate.] 8vo. *Gryphia*, 1858.
- Amelung.**—Beiträge zur Lehre von der Wirkung des Schwefelwasserstoffes. [On Poisoning with Sulphuretted Hydrogen.] (*Marburg*, 1858.)

WESTON relates his own case. His finger was bitten by an adder (*Coluber verus*). In fifteen minutes, notwithstanding that the wound

had been sucked, the finger became swollen and painful, numbness proceeded up the arm, the limbs became weak, he felt giddy, and vomited. Next day, spots of purpura hæmorrhagica appeared on different parts of his body, and erysipelas attacked his arm. He recovered slowly.

LIVINGSTONE says, that the sting of the "tsétsé," although fatal to the dog, ox, and horse, is not so, either to man, the goat, or the ass.

WALLER repeated McDonnell's experiment of allowing the actina to seize the sciatic nerve of a galvanoscopic frog, and on so doing was struck with the uncertainty and irregularity with which muscular contractions are obtained; whereas when he presented, in lieu of a galvanoscopic frog, a nereis to the actina, the result was invariably the death of the animal. The first symptom observed is a writhing, as if the creature felt great pain, and in the most marked cases to this is succeeded paralysis and flaccidity of the muscles, like what is seen in a frog poisoned by woorara. It appears indifferent whether the cephalic or the caudal extremity of the nereis be attacked by the actina—similar symptoms are produced in both cases. In order to elucidate the real power of the actina—after having in vain exposed the finger with the cuticle softened—Waller presented his tongue to the tentacles of the animal. The result was such as to satisfy him respecting the offensive weapons with which it is furnished. The animal seized the organ, and was with difficulty detached. The injury was followed by a pungent, acrid pain, the part becoming inflamed and much swollen. After an hour these symptoms abated, and in about four hours they entirely disappeared. In a day or two afterwards an ulcer appeared on the tip of the tongue, but it soon healed. From this experiment Waller concludes that the actinæ kill their prey by means of an acrid irritant poison—similar in some respects to that of the wasp, or of snakes—which quickly spreads through the system of the annelida, producing the above-mentioned results. By spreading a thin india-rubber membrane over a glass tube, and allowing the actina to grasp it, he found by means of the microscope that the poisoned darts are left sticking in the wound.

HARLEY, in his letter to the 'Lancet,' says, that in 1856, he pointed out the antagonistic action of woorara and strychnine, citing three experiments to show that these substances have the power of reciprocally neutralizing the effects of each other, according

as the one or other poison is in excess.¹ Since then he has frequently repeated these experiments, and on several occasions succeeded, by means of woorara, in saving the lives of animals to which he had administered poisonous doses of strychnine. In 1857, through the kindness of Professor Varnell, Dr. Harley had the opportunity of trying the effects of woorara on a horse labouring under a severe attack of tetanus, and although he did not succeed in saving the life of the animal, he says, that he saw enough to convince him of the value of the remedy. Indeed, so convinced was he of its beneficial effects, that he would have tried it shortly afterwards on a boy labouring under traumatic tetanus, had the disease not yielded to other remedies.

SPENCER WELLS alludes to the recent cases of tetanus treated on the Continent by Vella, Manec, and Chassaignac ; and to the experiments of Bernard with the alkaloid curarine, the active principle of the poison. He shows that the experiments of Brodie, in 1811, the application of their results by Sewell, and the subsequent experiments of Morgan and Harley, had anticipated all that has been recently done on the Continent, with the exception of making actual trial on the human subject. WELLS thinks that he has seen enough in his cases to establish the following propositions: 1. That our knowledge of the physiological action of woorara, of its antagonistic effects to the artificial tetanus of strychnine, of the results of its use in idiopathic tetanus of the horse and ass, and the fact that two cases of chronic tetanus in man on the Continent, and one in this country, have recovered during its application, should encourage further experiments. 2. That although cases of acute traumatic tetanus in man have died, notwithstanding the use of woorara, this should not discourage us from further trials, when we consider the fatal nature of this form of tetanus, and the fact that in only one of the cases was the woorara given in any quantity. In the discussion which followed the reading of this paper, Harley said—as regards the value of woorara when compared with other narcotics—that its superiority consists in its peculiar power of paralysing the motory much sooner than the sensory nerves. He said that this poison could be so administered as to entirely destroy the power of voluntary motion, without impairing the consciousness of the animal. In administering woorara to animals labouring under tetanus induced by strychnine, he gave sufficient to paralyse all the voluntary

¹ 'Lancet,' vol. i, pp. 619—647, art. "Notes of three Lectures on the Physiological Action of Strychnia."

muscles except those of respiration. In this way he was able to allay the tetanic spasm without destroying the intelligence, or arresting the performance of the organic functions,—and by continuing the thus-moderated action of woorara until the kidneys had time to eliminate the strychnine from the system, he had been able to save the life of the animal. The theory of its action in tetanus is, he considers, much the same. That is to say, you try to keep the spasms from killing the patient by their violence, until the morbid state calling them into play has exhausted itself. Sibson said that in 1838 he experimented upon an ass, to show that an animal might be resuscitated by artificial respiration after what would otherwise be a fatal dose. For more than an hour the animal lay apparently dead, with no sign of life except the beating of the heart. At length it breathed, and in an hour afterwards walked round the room. In a subsequent experiment Sibson gave woorara to a horse labouring under tetanus. As a dose proportionate to that given to the ass did not produce in this case any effect, more was given, and in increasing the quantity the animal was destroyed. In another case the animal breathed at the end of three or four hours, but it died before the apparatus could be applied a second time. The animal was free from tetanus during the whole period of the experiment. In order to overcome tetanus, it is necessary to give an adequate dose, and Sibson fears that an adequate dose will be such as to call for artificial respiration. Radcliffe suggested the employment of conia in cases of tetanus.

PAUL BROCA lately read a paper on the treatment of tetanus by woorara, to the Surgical Society of Paris. He began by giving a *résumé* of the literature of the subject, and then entered upon the question as to the best mode of administering it. He does not like the plan of inoculation, and prefers, he says, giving it by the mouth, which is a less troublesome and equally effective method. For although the poison does not act so rapidly, nor in such small doses when taken into the stomach, yet if given to fasting animals its absorption by the digestive canal is not to be doubted. BROCA further says, that he would not hesitate to give a man every half hour a tablespoonful of a six-ounce mixture, containing in solution fifteen grains of woorara. The paper contains many practical hints of importance.

KÖLLIKER and PELIKAN found that the muscles of frogs poisoned with woorara have, as first pointed out by Bernard, and afterwards

denied by Rosenthal, a greater irritability than healthy ones. Moreover, they found that the poisoned muscles can sustain an equal weight with the others. With Upas antiar, veratrin, and tanghinia poison, which act in the reverse way to woorara, namely, by killing the muscles, and not the nerves, similar experiments to the above showed that the poisoned, have much less irritability and power than the healthy muscles. (St.'s J.) Haber, under Reichert, confirmed the fact that the peripheri of the nerves become first affected by woorara, and after a time the trunk. That the poison only acts through the blood; that the sensory retain their irritability longer than the motor nerves; and that the muscles obey direct stimuli after the nerves have ceased to conduct. He found, moreover, that when woorara is directly applied to the sciatic, sooner or later its motor fibres become affected.

HABER says, that the fact of the motor being so much sooner poisoned than the sensory nerves proves that they are chemically different.

KÖLLIKER confirms the statement that the spinal cord is in general not affected by woorara until some hours after the peripheral nerves have been poisoned. He made ten experiments, and found that the reflex action lasted from one and a quarter to four and a quarter hours, at a temperature of $17-18^{\circ}$ R., and from six to twenty-five hours at a temperature of $5-6^{\circ}$ R.

HOPPE found that the nerves of frogs poisoned with woorara, whether divided or entire, after a time regain their lost influence over the muscles. He also observed that the rapidity of the action of the poison depends in a great measure on the rapidity of the circulation.

VULPIAN relates a series of experiments made upon animals poisoned with woorara, in which, by artificial respiration, he was able to keep the heart beating for some hours.

FUNKE denies that the motor any more than the sensory nerves lose the power of conducting stimuli in animals poisoned with woorara. He says that they only lose the power of communicating the stimuli to the muscles. In proof of this he cites several experiments which he performed with the multiplicator. Funke also relates some experiments which he made with strychnine, and concludes from them that it acts upon the nerves in a somewhat similar manner to woorara.

PELIKAN says that antiar and antiarine arrest the heart's action,

and destroy the irritability of the muscles. They affect the nerves, but slowly. These poisons are active when taken by the mouth as well as when applied to the skin or introduced through a wound.

KÖLLIKER and PELIKAN found that the *Tanghinia venenifera* at first quickens the action of the frog's heart, then makes it irregular, and at last stops it, in from five to fifteen minutes. There is no tetanus. The voluntary action ceases before the reflex, and the sensibility of the motor nerves before the muscular irritability. Section of the sciatic does not prevent the muscles of the limbs losing their irritability. The conclusion Kölliker and Pelikan came to is, that tanghinia acts upon the muscles like antiar, and upon the nerves like woorara.

KIEDROWSKI says that hydrocyanic acid, when introduced by a wound or by the mouth, first acts upon the gray substance of the brain, as is seen by its destroying sensation, and voluntary motion. The white substance of the brain, on the other hand, remains for some hours unaffected. The motor nerves furthest from the brain and spinal cord die first, and those nearest the nerve-centres last. The heart's action soon ceases, and usually the organ is found full of red blood.

JOSEPH found that in frogs poisoned with bichloride of mercury, the action of the heart soon stops. The topical application of the poison produces the same effect.

AMELUNG found that perch die when fifty per cent. of sulphuretted hydrogen solution is added to the water in which they are. Frogs in an atmosphere of the gas die in twenty to thirty minutes. Pigeons are killed by 3 c.c., and rabbits by 6 c.c., of a watery saturated solution given by the mouth.

The gas can be detected in the expired air (as Bernard previously showed) when 5 c.c. of the solution are injected into a vein, 20—40 into the stomach, or 32—50 into the rectum, of dogs. In the first case in five, in the latter in 55—120, seconds.

ANÆSTHESIA.

Richardson.—On Voltaic Narcotism for the Production of Local Anæsthesia for Surgical Operations. *Med. Times and Gaz.*, Feb. 12th, 1859, p. 156.

Waller.—Experiments on Dr. Richardson's Mode of performing Painless Operations by Voltaic Narcotism. *Med. Times and Gaz.*, 19th March, 1859, p. 285.

Waller.—Additional Observations on Voltaic Narcotism. *Med. Times and Gaz.*, May 14th, p. 491.

Richardson.—The same. *Med. Times and Gaz.*, June 25th, p. 647.

Waller.—The same. *Med. Times and Gaz.*, July 30th, p. 107.

Pelikan et Savielev.—Comment comprendre l'introduction de différents médicaments dans l'organisme au moyen du courant galvanique. [How are we to explain the Introduction of Substances into the Body by means of Galvanism?] (*Jour. de Physiol.*, vol. i, pp. 192—200.)

Todd (Armstrong).—Remarks on the Administration of Chloroform, with a Description of a new Inhaler. *Med. Times and Gaz.*, 9th July, 1859, p. 30; also at pp. 101 and 537.

Ozanam.—Note sur les inhalations d'acide carbonique considérée comme anesthésique efficace et sans danger. [Carbonic Acid Gas as an Anæsthetic.] *Compt. Rend.*, vol. xvi, 1858, No. 8, pp. 417—420. *Canstatt*, vol. i, p. 105.

Herpin.—Note sur l'emploi du gaz carbonique comme agent anesthésique. [The same.] *Compt. Rend.*, vol. xvi, March, 1858, No. 12, pp. 581—584. *Canstatt*, p. 105.

Baehrens.—De Anæstheticis nonnulla. 8vo. *Berolini*, 1857. [Some Remarks on Anæsthetics. Already known.—Valentin.]

Daub.—De Anæstheticis nonnulla. 8vo. *Berolini*, 1857. [The same. Pathological. No abstract.]

Geutebruck.—Ueber die Anaesthetica. 8vo. *Marburg*, 1858. [On Anæsthesia. A compilation.—Valentin.]

Becke.—De morte chloroformio inducto. 8vo. *Berolini*, 1858. [On Death by Chloroform. Already known.—Valentin.]

Kirsten.—Nonnulla de chloroformio. 8vo. *Lipsiæ*, 1858. [On Chloroform as an Anæsthetic. Already known.—Valentin.]

RICHARDSON begins by saying, that the electric current in no one of its applications can be made to produce insensibility to pain—although the interrupted current, by producing counter shocks in sudden operations, such as tooth-extraction, may remove the idea or the consciousness of pain, by a diversion of sensation. He proposes a new mode of producing anæsthesia, which he calls voltaic narcotism. The following experiment illustrates the mode in which this is applied: The upper part of a dog's limb, after being freed from hair, is wrapped in a broad, copper band, including a sponge saturated with a solution composed of, tincture of aconite, ʒiij; alcoholic extract of aconite, ʒj; chloroform, ʒiij. A third part of the solution is put on the sponge at one time. Below the ankle of the same limb is wrapped another band of copper, also including a sponge, but which contains merely water. This done, the upper plate is connected with the positive, the lower with the negative pole of the battery. In eleven minutes the parts included between the poles are so insensible, that they can be pricked or cut without the animal giving any signs of pain.

Richardson applied voltaic narcotism in a similar way, to the

wrist of a girl, in the neighbourhood of a bursa, and after making the application twice for a period of sixteen minutes, the parts to be operated on were white, and so insensible that the patient, whose head was averted, was unconscious that anything was being done.

WALLER repeated Richardson's experiments upon himself and several other persons, as well as animals, and came to the conclusion that the local insensibility obtained in the above-described manner is quite irrespective of the electricity employed, and is simply due to the local absorption of chloroform and aconite. The non-influence of the electricity, he says, is demonstrated by the fact, that the simple topical application of the narcotic mixture induces complete insensibility of the skin in a shorter time than when electricity is superadded. The effect of the electricity is neither to accelerate the absorption of the narcotic, nor to produce *per se* local insensibility of the skin. In his second communication, Waller says, "that the so-called process of voltaic narcotism is a *lusus physiologicus*, and all the effects obtained are solely referable to cutaneous absorption." Further, that the insensibility is entirely confined to the integuments at the spot of application, and that the contact of the narcotic mixture for ten or fifteen minutes is almost invariably followed by vesication, and even destruction of the superficial parts of the cutis. The inflammation being sometimes of a very painful and obstinate character. The cicatrization of the suppurating surface being more difficult than in the ordinary mode of blistering.

In his communication of the 25th June, Richardson says that he has continued his experiments on the subject of voltaic narcotism, several of which he relates, and he considers that it may be accepted as a fact, that such a degree of local insensibility may be produced by it as shall enable the surgeon to perform a large number of operations without pain. He makes no allusion to Waller's researches, but remarks that he is aware that the local application of narcotic solutions produce a certain degree of local anæsthesia. The addition of the voltaic current, however, makes the insensibility extend more deeply. The process, he says, has certain disadvantages: 1. It requires a long time, for its application to be successful; 2. It is accompanied with a certain amount of pain; 3. The apparatus necessary is cumbersome; and, 4. The production of cutaneous vesication is objectionable.

Waller, in his communication of the 30th July, brings forward

further evidence to show that the local production of anæsthesia by narcotics is not accelerated by electricity, and positively denies the existence of an interpolar variety. Moreover he shows that narcotics are very rapidly absorbed by the skin when dissolved in chloroform (see chapter on "Absorption"), and attributes Dr. Richardson's results entirely to the employment of that menstruum.

PELIKAN and SAVELIEFF made a number of experiments with a great variety of substances, such as the iodide of potassium for example, but it is quite unnecessary to cite any of them, as they all led the authors to the same conclusion, viz. that "the idea of introducing medicines into the organism by means of galvanism, arose from an imperfect understanding of the physical laws, and a mal-interpretation of experimental phenomena."

Todd's instrument is so constructed that the vapour of chloroform is freely diluted with air before entering the lungs, and that the warm expired gases are prevented from coming in contact with the narcotic. The advantage of the instrument consists in its permitting the chloroform to be inhaled in a gradual and uniform manner.

OZANAM experimented with carbonic acid on animals, and found that at first they remain still, then get uneasy, begin to breathe rapidly, and have violent palpitation of the heart. Immediately after this they become insensible, and fall over on the side. While in this state they show no signs of pain, even on the application of a hot iron. The pupils are moderately open. Brought into fresh air, they soon recover. Animals after a time get so inured to the action of the gas, that in order to render them insensible they require a much greater quantity. HERPIN's results are nearly similar to the above.

PARASITES.

Barclay (John).—The dependence of Tape-worm on the use of raw or underdone meat. *Med. Times and Gaz.*, March 26th, 1859, p. 309.

Peacock.—The same. *Ib.*, 28th May, 1859, p. 550.

Stone.—Fatal Case of *Sarcina Ventriculi*. *Brit. Med. Journ.*, 5th Feb., 1859, p. 100.

Kolliker.—On the frequent occurrence of Vegetable Parasites in the Hard Structures of Animals. *Proc. Roy. Soc.*, No. 36, p. 95.

Farre.—On Substances discharged from the Human Urinary Bladder. *Archives of Medicine*, No. 4, p. 290.

Hogg.—On the Vegetable Parasites of the Human Skin. *Lancet*, 5th Feb., p. 143.

- Fox (Tilbury).**—On the Identity of Parasitic Fungi affecting the Human Surface. *Lancet*, 10th Sept., 1859, p. 260.
- Lowe.**—On Parasitic Fungi. *Lancet*, 20th Oct., 1859.
- Hassall.**—On Fungoid and other Organic Productions generated in Alkaline and Albuminous Urine. *Lancet*, Nov. 19th, p. 503.
- Kuchenmeister.**—Bericht über die Leistungen auf dem Gebiete der thierischen Parasiten des Menschen. [On the Parasites affecting the Human Body.] (1856, 1857.) *Schmidt's Jahrbücher*, vol. 99, 1858, pp. 89—105.
- Blume.**—De Entozois corporis humani. *Berolini*, 1857-8. [On the Entozoa found in Man.] (Known already.—Valentin.)
- Levison.**—Disquisitiones nonnullæ de Echinococcis, adjecta historia morbi. *Gryphiæ*, 1857-8. (Valentin says this is a very carefully written paper, relating some experiments on Echinococci, and illustrated with plates.)
- Leuckart.**—Weitere Beobachtungen über die Jugendzustände und die Entwicklungsgeschichte von *Pentastomum taenioides*. *Henle und Pfeuffer's Zeitschr. für rationelle Medicin, Dritte Reihe*, vol. iv, 1858, pp. 78—101. (A good abstract of this paper on the Development of the *Pentastoma taenioides*, will be found in the *Microscopical Journal*. 1859, p. 182.)
- Van Beneden.**—Sur la reproduction des Echinocoques. [On the Reproduction of Echinococci.] *Bullet. de l'Acad. de Bruxelles*, année 1857, p. 319. *Bruxelles*, 1858.
- Van Beneden.**—Note sur quelques Pentastomes. [On some kinds of *Pentastoma*.] The same, pp. 349—352. *R. M. Diesing. Zwei Worte über Diporpa und Diplozoon. Sitzungsbericht der Wiener Akad.*, 1858, No. 4, p. 269.
- Jolly.**—Mémoire sur une nouvelle espèce d'hématozoaire du genre Filaire, observée dans le cœur d'un Phoque (*Phoca vitulina*, L.) [On a New Species of Entozoa found in the heart of the Common Seal.] *Compt. Rend.*, vol. xlv, 1858, No. 8, Feb., pp. 403—405.
- Wagener.**—Beiträge zur Entwicklungsgeschichte der Eingeweidewürmer. [Contribution to the development of Entozoa.] *Natuurkundige Verhandelingen van de Hollandsche Maatschappij de Wetenschappen te Haarlem. Twaalfe Deel*. 4to. pp. 1—112. *Harlem*, 1856. Vgl. *Frör. neue Notiz.*, 1858, vol. iv, No. 1, pp. 3—6. *Canstatt*, p. 130.
- Laycock.**—On the Parasitic Nature of Diphtheria. *Lancet*, vol. 1, 1859, p. 120.
- Harley.**—The same. *Ib.*, p. 173.

BARCLAY relates no less than ten cases of persons, at various ages, who were affected with tape-worm, and who, on searching examination, admitted that they were in the habit of occasionally eating raw meat.

A case in St. Thomas's Hospital, under the care of Dr. PEACOCK, was also traced to the same cause. The man, a boot-maker, aged thirty-six, had only been affected with the worm for eight months, and said that he became first affected with it after being for some time in the habit of eating raw bacon. Before this he had, however, been troubled with ascarides. This, and the ten cases related by Barclay, support Von Siebold and Kuchenmeister's

views, who say that the *Tenia solium* is most frequently found among people who use pork as a common article of diet. For example, in Poland and Hungary. On the other hand, it is rarely met with among Jews and Mohammedans, whose religion prohibits the use of pig's flesh. Von Siebold says that the vitality of the scolices of tape-worm is not destroyed by the process of curing; but Kuchenmeister differs from him, and thinks that the pickling and smoking of hams destroys it equally as well as cooking.

STONE reports a fatal case of *Sarcina ventriculi* which came under the care of Dr. Barker. The patient, a woman aged sixty-four, was ill during three months with symptoms of dyspepsia. For the last nine weeks she suffered from constant vomiting; not even water would remain on her stomach. Vomited matters were bright-green, soupy, and yeast-like, and full of sarcina. Died from exhaustion. *Post-mortem*.—All the organs found healthy. Stomach contained a quantity of fluid similar to that vomited during life.

QUECKETT was the first to point out that vegetable parasites frequently occur in the skeleton of corals. KÖLLIKER has taken up the subject and extended his observations over a number of species of animals — Spongiæ, Foraminifera, Corals, Bivalves, Brachiopods, Gasteropods, Annelids, Cirrhipods, and Fishes. In all of these he looks upon the parasite as a unicellular fungus, and not belonging to the Confervæ. It seems probable that they bore their canals by mechanical force, as is the case when vegetable parasites make their way through the cell-membranes of plants. Nearly all the parasites spoken of occur in marine animals. It may be further noticed that the author says, "These parasites afford an excellent means for demonstrating the *double-refracting power* of the shells."

FARRE gives an anatomical description of an entozoa previously figured and described by Mr. Laurence in the 'Med.-Chir. Trans.,' vol. ii, p. 385, 1811. Dr. Farre had seen the woman, and even removed some of the worms from her bladder, so (he says) that there could be no doubt that the entozoon came from that viscus. He also examined the bladder after death; but was unable to detect any worms, or disease in the organ. The worm has neither mouth nor alimentary canal; nor does it possess any generative organs. It is solid, and is composed of muscular fibres, connective tissue, and nucleated cells. In some specimens numerous shining, tendinous bands of fibres are observed crossing the abdominal aspect of the worm, near to the extreme ends of the

body. In some parts, cells closely resembling cartilage-corpuscles are observed. Some of the worms measure several inches in length, and are from one to three lines in breadth. Farre calls it the *Diplosoma crenata*.

HOGG says that it is wrong to attribute certain special diseases of the skin to a vegetable parasite peculiar to each. The same fungus is peculiar to all, and ought rather to be looked upon as the result, and not the cause, of the disease.

Fox, on the other hand, looks upon parasites as the real agents in the production of diseased hair, which, in his opinion, is the true parasitic affection. In all cases of skin-disease, if there be a parasite present in a state of growth, the hairs will be found diseased; when the growing fungus is absent, the hairs are unaffected. Other structures besides the hairs are, however, involved. Eruptive disease may be present, although not necessarily. Example—*Tinea decalvans*. Eruptions are evoked by a host of irritants besides parasites, whereas affection of the hairs, which Fox says is the true parasitic disease, can only be produced by the presence of a fungus. Remove the affection of the hairs, and nothing diagnostic of the ravages of the parasite remains; take away, on the other hand, the eruption, and the true parasitic disease is still there. He believes, moreover, that the existence of an eruption is necessary for the development of the parasite. LOWE's views are similar to the above, and he also, with Fox and Hogg, looks upon the fungi affecting the human surface as mere varieties of one common species.

HASSALL says the *Vibrio lineola* are not exactly linear; but slightly enlarged, and rounded at either extremity, like a dumb-bell. That they are endowed with the power of voluntary motion, and are rapidly developed in feebly acid or alkaline urine, especially that containing much animal matter (albumen). The *Bodo urinaris* are round or oval-shaped bodies, possessing two or three cilia. They multiply by *fissiparous* reproduction. They are developed under similar conditions to *Vibrio lineola*. Lastly, Hogg describes a peculiar fungus, occasionally met with in alkaline urine. Exposure to the air and the presence of albumen accelerate its development.

VAN BENEDEN took a quantity of Echinococci from the liver of a pig, and put them into milk in one, and into albumen of the hen's egg in another, case. By keeping them at about the temperature of

the living body he was able to preserve them alive, and study their development up to a certain point.

In dissecting the heart of a specimen of the common seal—*Phoca vitulina*, JOLY found several female nematoid worms, measuring from fifteen to twenty centimetres in length, and about one millimetre in diameter. To them he has given the name *Filaria cordis phocæ*. He found no males. Joly thinks that the embryos enter the animal along with its food, find their way into the circulation, and are there developed.

Valentin says that WAGENER's researches on the development of cestoid worms, as also on Echinococci, &c., are exceedingly important, and are illustrated with thirty-seven fine large plates. He gives, however, no abstract.

LAYCOCK found the *Oidium albicans* on the exudation from the fauces of a patient labouring under diphtheria, and thought that the parasite might be the cause of the disease. HARLEY examined twelve cases, and found it absent. Its presence in some cases is, he says, due to accidental circumstances. In one of the cases examined by Harley, the parasite grew on the exudation forty-eight hours after its removal from the patient.

GENERATION AND DEVELOPMENT.

Thomson.—On the Comparative Influence of the Male and Female Parent upon the Progeny. Edinb. Month. Med. Journ., Feb., 1859, p. 696.

Spencer.—On the Laws of Organic Form. British and Foreign Med.-Chir. Rev., Jan., 1859, p. 189.

Dobell.—On the Influence of White Light, of the different coloured Rays, and of Darkness, on the Development, Growth, and Nutrition of Animals. Proc. Roy. Soc., No. 34, p. 644.

Beclard.—Note relative à l'influence de la lumière sur les animaux. [On the Influence of Light on Animals.] Compt. Rend., vol. xlv, pp. 441—443.

Davy.—On the Electrical Condition of the Egg of the common Fowl. Proc. Roy. Soc., No. 35, p. 31.

Thomson.—On the Embryogeny of *Comatula rosaceæ* (Linck.) Proc. Roy. Soc., No. 34, p. 600.

Rolleston and Robertson.—On the Aquiferous and Oviductal Systems in the Lamellibranchiate Molluscs. Proc. Roy. Soc., No. 34, p. 633.

Duncan.—On the Development of the Female Pelvis. (Edinb. Med. Journ., Oct., 1859, p. 319.)

Lubbock.—On the Ova and Pseudova of Insects. Proc. Roy. Soc., No. 34, p. 374.

Bonifas.—De la génération spontanée. 4to. Paris, 1858. (A compilation in support of the spontaneous generation of present and extinct animals.—Valentin.)

Lankester.—Generationswechsel und Parthogenesis der Pflanzen und Thiere
 Froriep's neue Notizen, 1858, vol. iii, No. 1, pp. 1, 2. L'Institut, April, 1858,
 No. 1268, pp. 139, 140. [Parthogenesis in Plants and Animals. Already
 known.—Valentin.]

Cohn.—Ueber das Wiederaufleben der durch Austrocknen in Scheintod versetzten
 Thiere und Pflanzen. 35. Jahresber. d. schles. Ges. für vaterl. Cultur. Aus
 dem J., 1857. 4to. Breslau, 1858. pp. 48—50. (A review of various known
 facts regarding the resuscitation of dried and apparently dead animals.)

Kusssmaul.—Von der Ueberwanderung des menschlichen Eies als einer Ursache
 der Eileiterschwangerschaft. [On the Emigration of the Human Ova.]
 Froriep's neue Notizen, 1858, vol. ii, No. 3, pp. 41, 42. Gaz. Méd., August,
 1858, No. 32, p. 649.

Hecker.—Beiträge zur Lehre von der Schwangerschaft ausserhalb der Gebärmutter.
 [Contribution to our knowledge of Tubal Pregnancy.] 4to. Marburg, 1858.

THOMSON quotes a number of cases in man, and other ani-
 mals, to prove that the male parent has the chief influence over the
 propagation of the *texture, colour*, and other cutaneous peculiarities
 of the progeny. The following table shows this in man :

FATHER.	MOTHER.	CHILDREN.
Black.	Albino.	Black children.
Black.	Albino.	Black children.
Black.	Albino.	Albino child.
Black.	White Negress.	Black child.
Black.	White.	Black child.
White Negro.	Black.	White child.
Black.	White.	Black child.
White.	Black.	Twins—1 black, 1 white.

Number whose colour of skin was due to the father . . . 9

Ditto, mother 2

The hair takes on the characteristics of the male. The hair is
 crispy when the father is a negro; sleek, when the male parent is
 a European. Thomson quotes the following cases—

In a young woman residing in Edinburgh, born of Scottish
 parents, but whose mother, before her marriage, had a child by a
 negro, Dr. Simpson found that the *hair had the negro* characteristics.

Congenital alopecia is extremely rare, and in the only case on
 record Rayer tell us that it was transmitted by the father to
 the son.

In the lower animals, the marked influence of the male on the
 colour of the skin and hair is particularly remarkable. When the
 spawn of the salmon is impregnated by the male trout, the progeny

have the bright-red spots, and the black colour shaded downwards in bars, diagnostic of the male. In cross-breeds of birds, the colours are generally derived from the cock bird. The feathers of the feet of grouse disappear when the pheasant is the male parent. The ram, again, gives the quality of the wool to the sheep, and is selected for this purpose. Black rams are uniformly rejected for breeding, because of the transmission of their colour. The male wolf and bitch have progeny with colour, ears, and tail, like the father. The dog and she-wolf yield offspring with slouch ears and pied colour. A black-and-white sow, covered by a white boar, has a white litter. The hybrids of the male ass and mare resemble the ass in colour and coarseness of the hair, while the hinny by the stallion has the fine skin of the horse. The famous chesnut mare of the Earl of Morton, covered by a wild African ass, gave birth to a hybrid with black bars on the legs and shoulders. And although only covered once by the quagga, had successively three foals, *all* of which had unequivocal skin-marks derived from the quagga. Sir Gore Ouseley's mare, covered by a zebra, gave birth to a striped zebra. There are also curious examples known in the human race of the influence of a male extending to several generations, even when the female is impregnated by another male.

SPENCER aims to show that the changes undergone in the evolution of a homogeneous germ into a heterogeneous organism are interpretable as consequences of two universal dynamic laws—(a) that every homogeneous aggregation is in unstable equilibrium, because its different parts are differently exposed to incident forces, and (b) that every force produces more than one change; (c) that the forms of all organisms are dependent on their relations to incident forces. Thus it is found—1. That when the conditions are alike in all directions—either constantly, as in the *Gregarina*, or on the average of successive instants, as in the *Volvox*, or on the average of many individuals, as in the Protococci—there we have symmetry of three dimensions, or spherical symmetry. 2. That where the conditions are alike on all sides of one axis, but different in line of this axis—either constantly, as in the mushroom and in vertically growing plants and trees, in peltate leaves, and terminal flowers; or on the average of many successive instants, as in many echinoderms; or on the average of many individuals, as in the irregularly placed flowers and in zoophytes—there we have symmetry of two dimensions, radial or circular symmetry. 3. That where the

conditions are alike only on the opposite sides of one axis, while they are unlike in all other directions, as in the majority of leaves, in many flowers, and throughout the *Vertebrata*, there we have symmetry of one dimension, bilateral or linear symmetry. 4. That where the conditions, widely unlike in all other directions, are only partially alike on the opposite sides of one axis, as in the sole, &c., there we have unsymmetrical bilateralness. And, 5. That where the conditions are indeterminate, as with the *Amæba*, or have no similarity in any direction, as with the viscera of the higher animals, then the structure is asymmetrical.

DOBELL thinks that we may accept of the following propositions, *all other conditions being the same*. 1. *The ova of insects* are not directly influenced in their development by white light, by the different coloured rays, or by darkness. 2. *The larva of insects* are not directly influenced in their development, growth, nutrition, or metamorphoses, by white light, by the different coloured rays, or by darkness. 3. *The larvæ of Batrachian reptiles* are, in a similar manner, influenced by the same causes. 4. *The materials necessary to the colour of insects and reptiles* are equally well prepared under the different kinds of light or in darkness.

DOBELL says that, speaking generally, it must be admitted that light is essential to the development, growth, and nutrition of animals, but only *indirectly*. In his experiments, the usual coincidents of light, a proper supply of food, a due aëration of the respiratory medium, a properly regulated external temperature, &c., having been provided, the direct influence of light only being changed, no corresponding change occurred in the animal life.

BECLARD relates researches made upon the development of the fly (*Musca carnaria*), by means of coloured glass. The animals were most rapidly developed under blue and violet, least under green, light. The order of development was, 1, under violet; 2, blue; 3, red; 4, yellow; 5, white; and lastly, green. The quantity of carbonic acid exhaled by birds and mice under coloured glass does not vary; whereas with frogs it is very different—they give out one quarter, one third, or even one half more CO_2 under green than under red light.

DAVY says, that the structure of the egg suggested to him the idea of its exerting electrical action, which was confirmed on trial. Using a delicate galvanometer and a suitable apparatus, on plunging one wire into the white, and the other insulated, except at the point

of contact, into the yolk, the needle was deflected five degrees. On changing the wires, the course of the needle was reversed. When the white and yolk were taken out of the shell, the yolk being still immersed in the white, the effects on trial were similar; but not so when the two were well mixed; then no distinct effect was perceptible. Indications also of chemical action were obtained on substituting for the galvanometer a mixture consisting of water, a little gelatinous starch, and a small quantity of iodide of potassium, especially when rendered very sensitive of change by the addition of a few drops of muriatic acid. In the instance of newly laid eggs, the iodine liberated appeared at the pole connected with the white. In that of eggs that had been kept some time, it appeared at the pole connected with yolk, answering in both to the copper in a single voltaic combination formed of copper and zinc.

THOMSON describes the male and female reproductive organs of the comatula. The mature ova, before impregnation, are protruded and remain hanging from the ovarian orifice, entangled in the æreolar tissue of the everted ovary. In this position impregnation usually occurs. After segmentation of the yolk, a solid nucleus is formed in the centre of the mulberry yolk-mass; this nucleus becomes invested by a membrane, and into this mass the remainder of the yolk is gradually absorbed. The embryo is ciliated. The young larva, on escaping from the egg, is barrel-shaped, of a pale-yellow colour, girded at intervals with about five broad, ciliated bands. The digestive organs are rapidly developed, and the larva at the same time becomes vermiform. Under circumstances favorable to the production of the pentacrinal stage, the development of the larva may be arrested in any of its earlier stages, before the complete differentiation of its internal organs.

ROLLESTON and ROBERTSON say, that the commonly received opinion as to the orifices at the outlet of the ovarian system is erroneous, and that they are, in reality, the exhalent orifices of a water-vascular system. In the second part of the communication the structures are indicated which the authors hold to be the true oviducts. At the spawning season, a prominent ridge projecting into the lower segment of the intestine is seen, which, with two smaller ones, are said to discharge this function.

DUNCAN alludes to the manifold influences which determine the form of the pelvis. Between infancy and adult age, as it grows in size, it gradually changes in shape. In early life, the antero-pos-

terior diameter of the brim is greater than the transverse; the sacrum is nearly vertical; the ilium almost flat and straight, from the posterior tuberosities to the acetabulum. While in adult life the transverse diameter of the brim is greater than the antero-posterior; the sacrum and the ilium have both assumed an oblique direction. The horizontal rami of the pubic bones also form a less acute angle in the adult.

LUBBOCK endeavoured, in 1857, to show that the organic eggs of *Daphnia* are formed on the same type, and consist of the same parts as other eggs. In the present paper he says, that in all female insects there are two ovaries, each consisting of at least two egg-tubes opening into a common chamber, the uterus. The egg originates and attains to nearly its full size in the egg-tube, and it is with this portion of the generative organs he chiefly occupies himself. The egg-tubes differ very much in number and length, and the number of egg-germs they contain varies. It is, however, probable that in each species the number is definite. Each egg-tube generally consists of two membranes. The outer muscular, the inner delicate and structureless, and lined with a layer of epithelial cells. These probably take an active part in the secretion of the yolk in all insects, and are the principal, if not the only, organs which form the yolk in the Orthoptera, *Pulex*, and the Libellulina.

In the earliest stage of development, the egg-cell cannot be distinguished from the vitelligenous cells (those that secrete the yolk), and at the upper end of the egg-tube may be found cells which are neither the one nor the other, but which are apparently capable of becoming either the one or the other. The macula germinativa is a small, round vesicle in the Orthoptera. In *Pulex* the germinal vesicle is dark, and the macula germinativa, which is distinct in the young egg-germs, soon disappears. In the *Coccus*, the germinal vesicle makes its appearance after the vitelligenous cells. It is about $\cdot 0008$ in diameter. About the same time the oil-globules also make their appearance, and soon become the most conspicuous part of the egg. The vitelligenous cells, Huxley and Leuckart say, are well developed in the oviparous Aphides; but less apparent in the agamic or viviparous forms. It is generally stated that all the *Aphides* are, in spring and summer, self-fertile and viviparous, and become oviparous in autumn. Lubbock, however, thinks it probable that in cold regions some species may be always oviparous.

HECKER and KUSSMAUL's observations were made upon cases of tubular pregnancy in the human subject. Kussmaul concludes from his researches that the egg from one side of the generative organs passes over and develops itself in the other. A review of Kussmaul's book is to be found in the 'British and Foreign Quarterly,' October 9, 1859.

REPORT

ON

PRACTICAL MEDICINE, PATHOLOGY,

AND

THERAPEUTICS.

BY

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GENERAL PATHOLOGY AND SYMPTOMATOLOGY.

- Wilks.**—Lectures on Pathological Anatomy, delivered at Guy's Hospital during the Summer Sessions of 1857 and 1858. pp. 472.
- Virchow.**—Das wahre Neurom. [The True Neuroma.] Canstatt's Jahresbericht, 1859, vol. ii, p. 23.
- Leubuscher.**—Pathologische Bindegewebsentwicklung im Gehirn. [Pathological Development of Connective Tissue in the Brain.] Canst. Jahrber., 1859, vol. ii, p. 29.
- Snellen.**—Experimentelle untersuchung über den Einfluss der nerven auf den Entzündungs-Process. [Experimental Inquiry respecting the Influence of the Nerves on the Process of Inflammation.] Canst. Jahrber., 1859, vol. ii, p. 44. (The experiments were made under Donders' inspection.)
- Gunning.**—Untersuchungen über Blutbewegung und Stasis. [Inquiries respecting the Movement and the Stasis of Blood.] Canst. Jahr., vol. ii, p. 45. (Under Donders' superintendence.)
- Samuel.**—Ueber den Einfluss der Nerven auf den Entzündungs process. [On the Influence of the Nerves on the Process of Inflammation.] Canst. Jahrber., vol. ii, p. 48.
- Virchow.**—Zur Geschichte der parenchymatösen Entzündung. [On the History of Parenchymatous Inflammation.] Canst. Jahrber., 1859, vol. ii, p. 50.
- Ranzi.**—Sui fenomeni iniziali della flussione sanguigna specialmente secondo i risultati delle osservazioni ed esperienze microscopiche, nuovi studii sperimentali. Ferner.—Intorna di fenomeni iniziali della flussione sanguigna specialmente secondo i risultati delle osservazioni ed esperienze microscopiche: Nuovi studii sperimentali e considerazioni intorno all' essenza della flogosi. [On the Initial Phenomena of Determination of Blood, particularly according to the results of microscopical observation and experience: New Experimental Studies. Further.—Respecting the Initial Phenomena of Determination of Blood, particularly according to the results of microscopical experience and observation: new Experimental Studies and Considerations respecting the Essence of Inflammation.] Canst. Jahrber., 1859, vol. ii, p. 53.

- Lister.**—On the Early Stages of Inflammation. Canst. Jahrber., 1859, vol. ii, p. 53.
- Robin.**—Mémoire sur une mode particulière et non décrite de la production de la parvi (*sic*) des Kystes autour de certaines Collections de pus et d'autres liquides dans les organes profonds. [Memoir on a particular and undescribed Mode of Production of the walls of Cysts around certain collections of pus and other liquids in deep-seated Organs.] Canst. Jahrber., vol. ii, p. 54.
- Vulpian.**—Recherches sur la durée de la contractilité du cœur après la mort. [Researches on the Duration of the Contractility of the Heart after Death.] Canst. Jahrber., vol. ii, p. 55.
- Kussmaul.**—Ueber die Ertödtung der Gliedmassen durch Einspritzung von Chloroform in die Schlagadern. [On causing Death of the Limbs by injection of Chloroform into the Arteries.] Canst. Jahrber., 1859, p. 56, vol. ii.
- Gestin.**—De l'influence des Climats chauds sur l'Européen. [The Influence of Hot Climates on Europeans.] Canst. Jahrber., vol. ii, p. 58.
- Parchappe.**—Des variations pathologiques de la fibrine dans le sang. [On the Pathological Variations of the Fibrin in the Blood.] Canst. Jahrber., 1859, vol. ii, p. 61.
- Beckmann.**—Kleine Beiträge zur Experimental Pathologie.—(1.) Druckstieigerung im Arteriensystem und Albuminurie. (2.) Herzhypertrophie bei vermehrtem Druck im Aortensystem. [Small Contributions to Experimental Pathology.—(1.) On Increase of Pressure in the Aortic System, and Albuminuria. (2.) On Cardiac Hypertrophy in increased pressure in the Aortic System.] Canst. Jahrber., vol. ii, p. 62.
- Behier.**—Modification apportée au reactif de Böttger pour reconnaître la présence du sucre dans les urines diabet. [Modification of Böttger's Reagent for detecting the presence of Sugar in Diabetic Urine.] Canst. Jahrber., 1859, vol. ii, p. 75.
- Recklingshausen.**—Ueber eine Echinococcus Flüssigkeit. [On Echinococcus Fluid.] Canst. Jahrber., 1859, vol. ii, p. 86.
- Gannal.**—Mémoire sur l'hydropisine, nouvelle matière albumineuse. [Memoir on Hydropisine, a new albuminous substance.] Canst. Jahrber., 1859, vol. ii, p. 86.
- Delore.**—Note sur la suppuration bleue. [On Blue Pus.] Canst. Jahrber., vol. ii, p. 87.

CONTRIBUTIONS TO MEDICAL DIAGNOSIS AND SYMPTOMATOLOGY.

- Hamernik.**—Das Herz und seine Bewegung. [The Heart and its Motion.] Canst. Jahrber., 1859, vol. ii, p. 90.
- Gerhardt.**—Untersuchung über die Herzdämpfung und die Verschiebung ihren Grenzen bei Gesunden. [An Inquiry respecting the Dulness-area of the Heart, and the alteration of its limits in health.] Canst. Jahrber., 1859, vol. ii, p. 97.
- Luschka.**—Ueber die Lagerungsverhältniss der vorderen mittelfelle. [On the Position of the Anterior Mediastinum.] Canst. Jahrber., 1859, vol. ii, p. 100.
- Piorry.**—Influence des respirations profondes et accélérées sur les maladies du cœur, du foie, des poumons, &c. [The Influence of deep and accelerated Respiration on Diseases of the Heart, Liver, Lungs, &c.] Canst. Jahrber., 1859, vol. ii, p. 102.
- Hirsel.**—Klinische Fragmente. [Clinical Fragments.] Canst. Jahrber., vol. ii, p. 103.

- Schnepf.**—Capacité vitale du poulmon, ses rapports physiologiques et pathologiques avec les maladies de la poitrine. [Vital capacity of the Lungs, and its Relations to the Diseases of the Chest.] *Canst. Jahrb.*, 1859, vol. ii, p. 109.
- Czermak.**—Ueber den Kehlkopfspiegel. [On the Laryngeal Speculum.] *Canst. Jahrb.*, 1859, vol. ii, p. 111.
- Funk.**—Den Kehlkopfraehenspiegel und die Methode seines Gebrauchs. [The Laryngeal Speculum, and the mode of using it.] *Canst. Jahr.*, 1859, vol. ii, p. 112.
- Stork.**—Zur verwerthung des Kehlkopfraehenspiegels. [The value of the Laryngeal Speculum.] *Canst. Jahrb.*, vol. ii, p. 117.
- Semeleder.**—Beweglicher Brillenspiegel zu laryngoskopischen untersuchungen. [Moveable Spectacle-Mirror for examination of the Larynx.] *Canst. Jahrb.*, vol. ii, p. 118.
- Wunderlich.**—Ueber Hypertrophen bei typisch verlaufenden Krankheiten. [On Relapses in Diseases running a typical course.] *Canst. Jahrb.*, 1859, vol. ii, p. 122.

Dr. WILKS' lectures on pathological anatomy do not admit of more than bare mention. The work is divided into two parts, the first describing the various morbid states of the several organs and systems, the second treating of associated morbid conditions and essential diseases. Reference is made continually to illustrative specimens in Guy's Hospital Museum, which is under the charge of the author, and which, together with the numerous autopsies he has conducted, has furnished him with a most copious store of facts on which his statements are based.

GENERAL PATHOLOGICAL ANATOMY.

FOSTER, after quoting Virchow's description of the state of the nerves of an amputated stump, says that it is probable that the fascicular neuroma with fibroid characters is to be regarded equally with the true neuroma as a tumour consisting of nerve-fibres. In it, however, the fascicles of the perineurium are filled with nerve-tubes devoid of medullary substance, but broad and rich in nuclei.

WEBER describes the formation of new vessels in and on cartilage during chronic articular inflammation, as occurring in two different modes. In one club-like processes of fusiform nuclei or cells shoot out from the margin of a capillary loop, and give off fresh processes. These enter the gaps made by the perishing of the cartilaginous structure. The original capillary becomes the trunk of a vessel which ramifies through the new-formed arborescent process.

BILLROTH gives an account of the mode of ossification in

osteosarcomata, exostoses, osteophytes, the repair of fractures, &c. Maier describes a case of sarcoma melanodes; Virchow describes the minute structure of tubercle; and Forster gives a pretty full exposition of the structure of cylindrical epithelial canceroid. Beckman communicates a case of amyloid degeneration. (Vol. ii. pp. 24—27.)

LEUBUSCHER details a rare case of cystic formation in the brain, somewhat similar to the embryonal or colloidal tumours; as well as the microscopic appearances in the brain of an insane person, where some patches of softening and one of induration were found.

BUHL, from examination of trachomatous structure, refers the alteration to the class of neuromata, or tumours formed by considerable hypertrophy of the sheaths of the nerves. Kussmaul has studied the production of laceration of the inner coats of the cervical arteries in persons who have died by hanging. It occurred four times in fourteen cases. Billroth describes a new formation of glandular parenchyma as occurring in secondary acute and subacute inflammation of the lymphatic glands, not a mere increase of lymph-corpuscles. From examination of an inflamed prepuce, in which the sheaths of the vessels and bundles of connective tissue were full of lymph-corpuscles, Billroth comes to the conclusion that the connective-tissue-corpuscles may be regarded as the epithelium of the lymph-capillaries, which are represented by lacunar spaces among the bundles of the above-mentioned tissue. True lymphatic vessels were seen to originate from the vascular sheaths laden with corpuscles, in this instance. Billroth also describes the course of the degenerative changes in hypertrophy of the tongue and lips. Friedleben, in his admirable monograph on the thymus, shows that there is no such disease as the so-called asthma thymicum. Beale describes the interspaces between the lobules in cirrhotic states of the liver as not containing any unusual amount of connective tissue, but the detritus of cells that have perished. Wagner's treatise on uterine cancer, and Thompson's on the prostate gland, must be noticed, as works of reference on their respective subjects. Pellizzari supports the view that puerperal fever is only fever set up by purulent infection. Virchow describes the sweat-glands in cases of phthisis as being in a state of fatty degeneration.

CONTRIBUTIONS TO GENERAL PATHOLOGY.

Virchow's 'Cellular Pathology.'—This work is ranked by Kussmaul with Schwann's celebrated treatise, as doing for pathology what the

latter did for physiology. We can do no more than refer to it. So also with another essay of the same author, on '*Irritation and Irritability*,' we have to quote the remark of Kussmaul, that we do not see how, with advantage to the reader, we can give a summary of the contents, at least within the limits allotted to us. Snellen has examined experimentally the influence of various nerves upon the inflammatory process. He states, from observations on the ear of the rabbit, that "the relation of the sensory nerves to the vascular nerves is similar to their relation to the motor nerves. Irritation of the sensory nerves causes increased action of the vascular nerves of the same side upon the same part. When the irritation is intense, this reflex action, just as is the case with the motor nerves, extends also to other regions; moreover, it is the spasmodically contracted condition of the wall of the vessels which essentially conditionates the succeeding state of atony, so that the force of the heart remaining the same, vascular dilatation must follow contraction without the nervous influence being lessened." He further ascertained that section of the sensory nerves did not essentially alter the process of inflammation, while section of the vaso-motor to some extent promoted it, and quite positively promoted the absorption of extravasated fluid, and the occurrence of cicatrization. So also when he inflamed both eyes, by dropping strong acetic acid into each, the course of the inflammation was shortened in the eye of the side on which the sympathetic cord had been divided. Snellen opposes the old view that section of the fifth pair produces corneitis by paralysing the nerves that preside over the nutrition of that part. He believes the corneitis that ensues to result from mechanical irritation, &c., and shows that if the animal's ear is fastened in front of its eye, and the mucous secretion carefully removed, the cornea is kept free from inflammation.

GUNNING has studied carefully the motion of the blood, and its stasis. With respect to the influence of the nerves on the diameter of the vessels, he found, that in frogs, division of the rami communicantes of the sympathetic produced no marked effect; division of the sciatic plexus near the spinal cord had a marked effect in producing vascular injection, and increasing the rapidity of the current; pinching of the skin he found to cause contraction of the small arteries, but does not feel satisfied to assume a reflex action from the sensory or the vaso-motor nerves, because arterial contractions occur both spontaneously (even after division of the nerves) and associated

with muscular movements. With respect to the effect of irritants—(1.) A weak galvanic current constantly contracts the greater and smaller arteries lying in its course, sometimes in spots, sometimes completely, and usually so perfectly that the channel is obliterated. The veins of the web were never positively contracted, only the larger ones running at the sides of the toes. The circulation in the capillaries was not slackened or arrested, unless the degree of contraction was considerable. (2.) Mechanical irritation produced the same effects as Wharton Jones observed. (3.) Warmth (104°) immediately increases the rapidity of the stream, and distends the arteries, capillaries, and veins, without causing contraction or dilatation. A higher temperature (158°) at first increases the rapidity of the stream, but soon it slackens, and stasis occurs. The arteries were not contracted. Cold (32°) had no effect. [The editor remarks that some observations of his own were very positive as to the arterial dilatation produced by warmth, and the contraction induced by cold. Both the higher and lower temperature were moderate.] (4.) Dilute acids for a moment increase the rapidity of the current, then it declines and stasis sets in. Stronger acids cause accumulation of the blood in the veins, and an empty state of the capillaries and arteries. (5.) Dilute caustic alkalies act in the same way as acids. (6.) Chlorides of sodium and calcium, sugar, urea, sulphate of magnesia, and of soda, &c., act much in the same way. A drop of cold, saturated solution conditionates almost immediately acceleration of the circulation, without visible arterial dilatation, which in a few seconds passes into retardation and arrest. The stasis affects, first the capillaries, then the veins, last the arteries. In the small veins, whose current tends away from the irritated spot, the direction is sometimes reversed. Gunning concludes that stasis has no connection with the state of the vessels or of the heart's action. He confirms Weber's results as to the effects of irritants after ligature of the vessels.

SAMUEL, after observing that exudation is the inflammatory phenomenon in warm-blooded animals, which is equivalent to stasis in the cold-blooded, and expressing his agreement with Lawrence, Thomson and Virchow, as to the non-occurrence of stasis in the ordinary inflammations of the human subject, proceeds to state his own results as to the production of inflammation by irritation of a nervous centre. The part he selected was the posterior part of the spinal cord of the frog, and the irritants were mechanical and elec-

trical. True stasis was produced, not mere stillstand of the current. Samuel concludes that nerves originate from this centre which regulate the nutrition of the posterior limb.

VIRCHOW describes a specimen of inflamed cornea, and one of inflamed endocardium of the chordæ tendineæ, as illustrating his views of parenchymatous inflammation. The lamellæ in the former were unaffected, the corpuscles were enlarged to from ten to twenty times, and rendered opaque by a fatty, albuminous, granular mass. In the latter the inflammatory alterations did not appear in the vicinity of the vessels, but rather at the most remote parts, where the tendinous cord is most exposed to tension, at the point of bifurcation.

RANZI, (late) of Florence, denies that the capillaries have any power except that of elasticity. Active hyperæmia he ascribes to the greater activity with which the tissues exert their function. Inflammation he refers, and did as long ago as 1844, to secret disturbances of the interchange taking place in the process of nutrition between the blood and the tissues. He thinks that no explanation can be found in the derangements of the circulation of the phenomena of inflammation. Neither does he consider inflammation as an increase of organic activity and nutrition, but rather as characterised by the reverse.

In a paper on the early stages of inflammation, LISTER shows that irritation of a certain part of the spinal cord of the frog produces constantly contraction of the arteries of the web, and that destruction of the same is followed by permanent dilatation. Neither state, however, causes any arrest of the blood-current, or alteration in the quality of the blood. From the circumstance that the same changes are produced in successive portions of blood passing through the vessels of a spot which has been subjected to mild irritation, viz., increased tendency of the red and white corpuscles to adhere together and to the walls of the vessels, Lister concludes that the irritated tissue is the original seat of the inflammation, and that the alterations in the blood are secondary. He observes, further, that the red and white corpuscles are never more inclined to adhere than they are in healthy, fresh-drawn blood, and concludes that the tissues of a healthy part exert an influence on the blood whereby the red and white corpuscles are kept free from tendency to adhere, while in inflamed parts this influence is more or less lost. Lister believes the inflamed parts to be in a state of diminished functional activity, from the relaxation of the arterial coats and the diffusion of the

pigment in the radiating pigment-cells, the active state of these cells showing concentration of the pigment around the nucleus.

ROBIN describes certain cystic tumours whose walls are columnated like those of the auricles of the heart, or “*a vessie à colonnes.*” The columns have sometimes quite the appearance of muscle, but contain no striated or non-striated muscular fibres; they consist only of bundles of fibres, among which are occasionally elastic. The contents are various—puriform or mucous, turbid or transparent. These tumours occur in many different parts.

VULPIAN publishes some inquiries relative to the duration of the contractility of the heart after death. In a decapitated criminal the right auricle acted for five hours, the autopsy not having been commenced till twenty-four hours after death. Independent rhythmical movements were observed in the right auricle of the dog's heart twenty-six hours after cessation of artificial respiration. An undulating movement was observed thirty-four hours after death. It often continued when strong galvanic and mechanical irritation failed to produce contraction.

KUSSMAUL shows that chloroform injected into the arteries of dead animals prevents putrefaction, but if injected during life it speedily produces it. He ascribes the difference to the circumstance, that after the chloroform has destroyed the vitality of the tissues in the latter case, it is washed away by the blood, and so cannot exert its preservative action. The case is the same as when a limb mortifies after frostbite; the return of the circulation brings with it three conditions highly favorable to putrefaction, viz., warmth, oxygen, and water. The blood continued to circulate in the dead limbs in the experiments performed by Kussmaul until putrefaction had visibly set in, as declared by the odour and colour of the skin. When all circulation had ceased in the leg and the greater part of the thigh, in consequence of thrombosis, a concentrated solution of iodide of potassium was injected under the skin of the sole of the foot; after four and a half hours the salt was detected in the urine, and continued to pass off copiously by this channel until the death of the animal, twenty-four hours later. Kussmaul supposes that the channel through which the salt reached the moving blood from the putrid limb, must be the microscopic, plasmatic, vascular system of the connective tissue discovered by Virchow. Diffusion and capillary attraction probably operated to transmit the saline solution along these channels, aided also materially by the suction-power of the

heart, which must be felt even in that vascular system. Mere irritation, as shown by experiments with dead organs, does not cause a salt to penetrate speedily into the interior of the mass. The practical conclusions which Kussmaul adopts are—"that a putrid limb is not to be considered as a mere dead appendage, even when all circulation has ceased; that, on the contrary, there may go on an active exchange of fluids between it and the living parts; that the mechanical and even the chemical actions are different in sphacelus and in post-mortem putrefaction; and lastly, that the magnitude of the danger in gangrene of a limb does not only depend on the size of the contact-surface of the living and dead parts, but on the size of the whole putrefying mass."

GESTIN maintained a thesis at Paris in 1857, on the influence of hot climates on Europeans. The essay is full of important facts, and does not admit of abbreviation for our limits.

PARCHAPPE has made numerous examinations relative to the pathological variations of the fibrine in the blood. He finds that in acute inflammations, attended with fever, the blood contains twice as much fibrine as in the normal condition; he states, as the general mean, 15.88 parts per 1000 of liquor sanguinis. In chronic inflammations the increase was very little 5.10 to 6.01 per 1000. In various diseases attended with impoverishment of the blood, where the fibrine has been apparently increased, Parchappe shows that the increase is only relative, and that there is an absolute decrease.

G. MEYER in thirty-one persons dying of different diseases, found traces of sugar (or hepatine yielding sugar) five times only, while in the remaining twenty-six there was no trace. Vernois found sugar sixty-seven times in 173 cases; Stokvis only once in eleven cases, the sugar-yielding case being that of a man who died from fracture of the skull while in perfect health. In a case of death from common carburetted hydrogen no sugar was found, though the patient lived only four hours. It does not appear that the age, the nature of the disease, or its duration has any positive determining influence on the presence or absence of sugar. Meyer ascribes its absence, in accordance with Bernard's views, to an alteration of nutrition occasioned through nerve-influence.

In a dog whose thigh-bone had necrosed after obliteration of the aorta, BECKMANN observed the muscular fibres of the heart in some places calcified so as to form rigid, glistening cylinders; only here and there were the calcareous salts deposited in the form of small,

round granules between the fibres. In the kidneys, the cortical tubes in several places were completely filled with calcareous salts; the Malpighian bodies, the stroma, and the pyramids, were free.

PATHOLOGICAL CHEMISTRY.

Relative to the detection of sugar in the urine, in the normal and in pathological conditions, there are several communications which may be consulted with advantage by those who wish for further information on this subject (pp. 93—104). We can only cite the following. Böttger's new test for sugar is, according to Behier, one of the most delicate and reliable, if slightly modified as he proposes. The urine is boiled with an equal volume of one part of crystallized Carb. Sodæ in three parts of water, and a little basic nitrate of bismuth added. Behier adds also a very small fragment of caustic potash. If sugar is present, the bismuth is reduced, giving a black colour to the mixture; if there is none, it remains white.

Echinococcus fluid examined by RECKLINGHAUSEN was colourless, feebly acid, turbid, containing flocculi mainly made up of scolices, of sp. gr. 1·015, free from albumen. In 100 parts there were 97·998 of water, 2·002 of solids. The latter contained nearly half its weight of chloride of sodium.

ROBIN and VERDEIL have drawn attention to a substance occurring in dropsy different from ordinary albumen. This liquid, after addition of sulphate of magnesia and filtering, is rendered turbid by boiling, alcohol, or acids, without coagulating in flocculi like albumen. They requested Gannal to examine this substance further. He states, as the general result of his inquiry, "That in the morbid effusions of the pleura and peritoneum a substance is found coagulable by heat and nitric acid. It is distinguished from *serum and albumen* by being retained by sulphate of magnesia without being coagulated; from casein by coagulation on heating; and from pancreatine by not being reddened by chlorine. This substance he names hydropisine. It has not been found in the urine of morbus Brightii. In 100 parts of pleural effusion there were 16·70 parts of moist hydropisine, 21·15 of moist albumen. In 100 parts of peritoneal serum there were 14 of moist hydropisine, 24·46 of moist albumen.

In many cachectic individuals the pus secreted by wounds is of a greenish colour, and stains the dressings blue. The colouring-

matter has been isolated by COUTARET, by steeping the bandages in cold distilled water, and expressing the liquid. This is mixed with some alcohol, heated to boiling, and filtered. After driving off the alcohol by heat, chloroform is added, which takes the blue colour from the water. The chloroform-solution being separated and evaporated, a deep-blue powder was obtained, which became green on shaking with æther, and remained blue in water, thus proving the identity of the blue and green colouring. The general opinion is, that the colouring matter is a modification of biliary pigment.

CONTRIBUTIONS TO MEDICAL DIAGNOSIS AND SYMPTOMATOLOGY.

In a paper on the position and movements of the heart, HAMERNIK states it, as a great mystery, that the heart's systole should raise the wall of the chest instead of rather drawing it inwards. He thinks he can explain this by reference to his observations on the position of the heart and the fixed point afforded it by the contraction-tendency of the lungs. If the heart is examined by touching it through the diaphragm after opening the abdominal cavity, through the pleura by removing the fifth costal cartilage, and through the right layer of the anterior mediastinum from the right pleural cavity, the observer becomes convinced of the firm, immoveable position of the heart, fitted into the angle between the diaphragm and anterior wall of the chest. "If a small opening is made into the pericardium through the right mediastinal layer, the air rushes in with a noise, the heart loses its fixity, the sharp edge of the right ventricle starts from its recipient angular bed, the heart becomes easily moveable, takes another position and direction, while the anterior wall of the chest between the fourth and sixth cartilages (left) changes its resonance, and (in place of a dull) gives now a clear note." This firm, immoveable position of the heart only exists in young, healthy individuals; in old persons and in various morbid states it is lost. Hamernik maintains that the apex of the heart takes no part in the impulse, the tongue-shaped extremity of the upper lobe, or the anterior border of the left lung, lying between it and the anterior wall of the chest. Hence the determination of the site of the heart's impulse cannot determine the position of the heart. Hamernik describes particularly the *superficial* and the *deep* position of the heart, the chief difference between them being the close approximation in the former of the anterior or superior convex wall of the ventricles to the wall of the chest. The former is the position which exists in early life, until

“involution” has set in. In the latter the heart retires more from the surface of the chest, and is covered more or less by the anterior thin part of the left lung. The swelling up of the heart, or the increase of its vertical diameter, when lying on its posterior flat surface, is, according to Hamernik, the cause of the impulse. That the heart during systole moves downwards, or from left to right, he quite disbelieves.

GERHARDT has made inquiries relative to the limits of the heart's dulness.—(A.) In healthy individuals, lying on the back and breathing quietly, he finds that the right or internal boundary line corresponds with the left border of the sternum. The lower border of the cardiac dulness runs from the lowest extremity of the preceding outwards and a little downwards to join the external at the level of the sixth costal cartilage, or occasionally of the seventh or fifth. The length of this border is about one third that of the length of the sternum. The upper and left boundary is made up of a shorter portion sloping a little downwards, and another longer running more decidedly downwards and outwards. This line, thus bent at an obtuse angle or curved, commences at the lower border of the fourth left rib. (B.) Changes during deep inspiration and expiration consisted in a decrease and descent during inspiration, an enlargement and ascent during expiration; the right boundary, however, almost always remaining unaltered. The mean advance of the left boundary inwards and to the right during deep inspiration was $1\frac{7}{8}$ centim., the upper boundary descended about $2\frac{1}{3}$ centim. In deep expiration the upper boundary receded $1\frac{5}{8}$ centim., the right lower lung-boundary $1\frac{1}{2}$ centim., the left cardiac limit a figure intermediate to the two. (C.) Alterations depending on the right or left lateral position were evident. In the left lateral position the left cardiac limit advanced $1\frac{1}{4}$ —7 centim. outwards; the right limit was unchanged. In the right lateral position the heart's impulse is still felt at or near the same spot as in the supine, but it is weaker; right ventricle pulsation, however, becomes more evident under the xiphoid process. In the lateral positions two displacements, which are only exceptional in the supine position, are almost constantly observed, viz., in inspiration while lying on the left side movement of the right limit towards the left, and in expiration on the opposite side movement of the same limit to the right. Gerhardt infers from the above—(1.) That extensive pleural adhesions in the vicinity of the heart will impair its mobility in every direction, and of course diminish the variations in the extent of its

dulness. (2.)—That murmurs depending on the contact of roughened spots may be developed, increased, or abolished, by change of position. (3.) If it should be shown in a case of simple pericardial adhesion that the mobility of the heart was lost, this latter would become a useful sign of such adhesion having occurred. In the person of a female, who had an external fistulous opening, Gerhardts observed distinctly, by introducing his finger so as to be in contact with the sternal part of the diaphragm, that the heart descended at each inspiration (tranquil), and altered its position with right or left lateral decubitus. He also assured himself of the occurrence of a systolic movement of the heart's apex downwards and to the left.

HAMERNIK having stated that the whole posterior surface of the sternum was covered by the right pleura, and that no part of the pericardium was left unlined by the two pleuræ, LUSCHKA examines the exact positions and attachments of the two layers of the anterior mediastinum, and finds that the individual varieties are very considerable, but that as a rule there exists certainly a triangular space at the lower end of the body of the sternum devoid of pleural covering, and therefore accessible to the trocar in hydropericardium. The width of this at the level of the sternal extremity of the fifth rib is 1·5 centim., at that of the sixth rib 2 centim., at that of the seventh rib 3·5 centim.

PIORRY recommends frequent and deep respiratory efforts as a means of relieving dyspnœa dependent on a congested and dilated state of the heart, congestions and inflammations of the liver and also of the lungs, as well as dropsical effusion resulting from cardiac disease.

In his clinical fragments, HIRSCH accounts for the vocal fremitus being sometimes abnormally increased, at others diminished, by the varying state of the tension of the thorax, or by the too great pressure of the swollen lung against the parietes. Condensation of the lung will always, he believes, intensify the vocal vibrations.

In examinations of the vital capacity of the lungs, and its relation to chest-disease, SCHNEPF finds that expiration always occupies a longer time than inspiration, and that in three out of four cases a quantity of air greater by 50·250 c.c. is expired than is inhaled. He does not think this increase can be explained by expansion of the air from heat, and addition of carbonic acid, for these conditions exist in all persons. He states, further, that the quantity of air put in motion during the respiratory act does not

depend on the breathing movements; there does not even appear to exist any close relation between the two. Relative to the influence of age, Schnepf concludes that before the age of ten the capacity of the lungs increases yearly about 140 c.c., so that at the age of ten the mean is about 1400, and that to obtain approximatively the capacity for an age below this, it is sufficient to multiply the given number by the age. Between the ages of ten and twenty the yearly increase amounts to above 260 c.c., except for the first years. At the age of twenty the capacity reaches its maximum, and afterwards declines, but in an irregular manner, so that no yearly number of decrease can be stated. In the female sex the pulmonary capacity is considerably less than in the male. The capacity increases in general with the height, yet persons of the same height may differ in their capacities 1200—1300 c.c. The circumference of the thorax (taken at the nipples) has no determinate relation to the capacity. In one fourth of the observations made to determine the point it was found that the capacity was the same when the stomach was full as when it was empty; in another fourth the inspiration and expiration were both greater when the stomach was empty; in the remaining half the capacity was greater when the stomach was full.

CZERMAK strongly recommends the use of Garcia's laryngeal speculum for the examination of the larynx and adjacent parts. The instrument consists of a small, oblong mirror, fixed to a suitably bent wire. The mirror is introduced deeply into the throat till its lower margin meets the posterior wall of the pharynx, the soft palate being pushed upwards. With a little practice the whole base of the tongue, the epiglottis, the upper and lower chordæ vocales, the ventricles, the mucous lining of the arytenoid cartilages, and the posterior pharyngeal wall as far down as the œsophagus, nay, on deep inspiration a considerable part of the interior of the trachea, can be brought into view. By turning the reflecting surface of the mirror upwards, a view can be obtained of the posterior surface of the soft palate, and of the upper part of the pharyngeal cavity. TÜRK gives a description, with figures, of the laryngeal speculum he employs, with copious details of directions for its use. For these we must refer to the paper, only remembering that it is necessary to heat the speculum moderately before introducing it into the mouth, to prevent the condensation of vapour on its surface.

SEMELEDER recommends the employment of a concave mirror, perforated in the centre, and fitted to the examiner's eye, as an im-

proved means of illuminating the part of the throat which it is desired to see with the speculum.

In some remarks upon hypostrophes, as WUNDERLICH terms relapses, and various deviations from the normal course of recovery, he observes that no sign gives such sure and early warning as the increase of the temperature of the body. So long as in diseases that subside slowly the temperature falls uniformly, or with such variations that the morning temperature and the evening are each a little below that of the preceding day at the same hours, there need be no fear that the improvement is interrupted; or if the temperature which has fallen to the normal figure after rapid or slow subsidence remains normal, or after having fallen below this point it ascends to it, there is no ground for anxiety, even if the other conditions should not become healthy as soon as was expected. If, on the contrary, through several days, the temperature keeps up beyond the normal figure (at least at the corresponding hours of different days); if even a little increase of temperature is apparent, comparing similar hours of succeeding days, there is every reason to be on one's guard. If an increase of a degree or more takes place from evening to morning, or from one evening to the next, the occurrence of a relapse of fever is by no means improbable, and the utmost precaution necessary, even if the patient feels well. If the increase lasts several days, and advances, one may be certain that a fresh morbid process, or a recurrence of the past, has set in.

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In his work on the prevention and causation of disease, PARKIN controverts the accepted views, as to the influence exerted by decomposing matters of all kinds in producing both endemic and epidemic disease, and ascribes the chief potency to malaria, the same agent that produces intermittent and remittent fever all over the world. He entirely dissents from the view that this agent is the result of vegetable decomposition, and propounds the opinion that it rather proceeds from volcanic action, applying this term not so much to the special effects of volcanic eruptions and earthquakes, as to the cause which gives rise to them. He cites various instances to show that occupations involving the constant inhalation of putrid emanations are by no means unhealthy, indeed appear actually condu-

cive to health (*vide* the cases of Mr. Rose's 118 labourers, employed in emptying ashpits by day and cesspools by night, and that of the knacker's yard at Montfauçon, near Paris). Dr. Parkin does not seem to recognise the distinction between typhus and typhoid fever, nor between these and malarious fever, nor does he believe "that any particular district has been preserved from visitations of either epidemic or endemic diseases by the removal of nuisances or by the establishment of new drains." Indeed, he entertains the opinion that drains may act directly as promoters of disease, partly by affording a passage along which malarial emanations from the banks of rivers may make their way into the interior of the houses, and partly, when they become dilapidated, by allowing gaseous (malarial) matter to enter the drain from the soil. The chief remedies which he proposes are, paving or flagging the surface of the ground, so as to prevent the escape of the malarial emanations, and the use of charcoal and carbonic acid, to absorb and neutralize them when they have escaped. In an appendix he gives various suggestions as to the best method of dealing with the question of the drainage of London. He argues forcibly for the application of the sewage to the purposes of manure, instead of allowing it to be thrown away into the sea.

GARROD'S work is divided into fifteen chapters.—Chapter I is introductory and historical; II and III describe the symptoms and phenomena of acute and chronic gout; IV treats of the blood; V, of the urine in gout; VI and VII, of the morbid anatomy of gout; VIII, of its causes; IX, of its pathology; X, XI, XII, and XIII, of its treatment; XIV, of irregular forms of gout; and XV, of rheumatic gout. The scanty space at our command induces us to give the following extract from the chapter on the nature of gout, as conveying in a condensed form the principal views set forth by the author. "*First*, in true gout uric acid is invariably present in the blood in abnormal quantities, in the form of urate of soda, both prior to and at the period of the seizure, and is essential to its production; but it can be equally proved that this acid may occasionally exist largely in the circulating fluid without the development of inflammatory symptoms, as, for example, in cases of lead-poisoning and a few other instances. Its mere presence, therefore, does not explain the occurrence of the gouty paroxysm. *Secondly*, the investigations recently made in the morbid anatomy of gout prove incontestably that true gouty in-

inflammation is always accompanied with a deposition of urate of soda in the inflamed part. *Thirdly*, the deposit is crystalline and interstitial, and when once the cartilages and ligamentous structures become infiltrated, such deposition remains for a lengthened time, perhaps during life. *Fourthly*, the deposited urate of soda may be looked upon as the cause, and not the effect, of the gouty inflammation. *Fifthly*, the inflammation of gout tends to the destruction of the urate of soda in the blood of the part, and consequently of the system generally. *Sixthly*, the kidneys are implicated in gout, probably in its early, and certainly in its chronic, forms; and this affection is not only functional, but subsequently becomes structural; the urinary secretion is also altered in composition [being often slightly albuminous, and always deficient in uric acid]. *Seventhly*, an impure state of the blood, arising principally from the presence of urate of soda, is the probable cause of the disturbances which not unfrequently precede the seizure, and of many of the anomalous symptoms to which gouty subjects are liable. *Eighthly*, the causes which predispose to gout, independently of those connected with individual peculiarity, are either such as produce an increased formation of uric acid in the system, or which lead to its retention in the blood. *Ninthly*, the causes exciting a gouty fit are those which induce a less alkaline condition of the blood, or which greatly augment the formation of uric acid, or such as temporarily check the power of the kidneys for eliminating this principle." Under the head of treatment, he shows from experiment that colchicum has no effect in increasing the elimination of uric acid or the other solids of the urine. He does not agree with the opinion that colchicum acts beneficially by virtue of its purgative action, as most marked curative effects may be obtained without any purgation. Neither does he apprehend that the judicious use of colchicum renders the attacks more frequent and inveterate. He thinks favorably of the use of salines, in small doses, administered in a very dilute form, and continued for a long period. Carbonate of lithia is valuable from its great solvent power over uric acid. Ash-leaf infusion is useful in chronic cases; it seems to have the power of diminishing the frequency of the attacks. To the use of Vichy waters he assigns but a limited utility, disapproving of them in chronic and acute gout, and only advising them in the complete intervals of the latter, and more especially in strong and robust subjects, where uric acid is formed in excess, and in cases in which

the liver and digestion are considerably at fault. The disease termed rheumatic gout he looks upon as diverse both from gout and rheumatism, and states that much injury is frequently produced by treatment directed by a wrong view of the nature of the case, and especially from its being confounded with gout or rheumatism. The great object is to strengthen and give tone to the system, and to promote the due assimilation of the food. The appendix contains some valuable information as to the tests for urea, the influence of colchicum, the composition and influence of various mineral waters.

ALTHAUS, in Chapter I, treats of the forms of electricity; Chapter II, of electro-physiology; Chapter III, of medical electric apparatus, and its application; Chapter IV, of electricity as a means of diagnosis; Chapter V, of electro-therapeutics. The information under the several heads is very complete, but we have not space to attempt any analysis.

In a paper on the uses of bleeding in diseases, MARKHAM maintains the following thesis: "That as regards internal inflammations, venesection is of service, not through any *direct* influence which it exercises over the inflammatory process, but in consequence of its removing certain of the *secondary* consequences which arise *accidentally* out of the inflammation; that venesection, in fact, acts in internal inflammations as it acts in all other diseased conditions in which it is of service, viz., by relieving the oppressed and congested condition of the heart which has arisen as their consequence; and that the direct abstraction of blood is of service in those internal inflammations in which anatomy shows us that it is possible."

A paper by ALTHAUS on the action of the electric current upon the motor nerves and muscles may be referred to with advantage, but it is impossible to abstract it with advantage.

HUNTER affirms that to produce an immediate or a decided narcotic effect in any case, no method is more effectual than the hypodermic injection of the cellular tissue. The proceeding is the same as in Dr. ALEXANDER WOOD's treatment of neuralgia.

HARDY records several cases of purpura hæmorrhagica treated satisfactorily by tincture of larch bark. Dose of tincture, from ʒss to ʒiij.

The addition of Bismuthi Subnitras to copaiba and cubebs ob-

viates the gastric and intestinal disturbance they are apt to produce. Dental neuralgia is instantaneously relieved by cotton soaked in the following liquid placed in the meatus of the ear of the affected side: *Morphiæ Acet.*, gr. iss; *Acid. Acet.*, mij ; *Eau de Cologne*, ʒij . M.

BARCLAY treats the moot question of the day, as to the value of bloodletting in acute diseases. He recognises plainly a varying degree of power in the human body, whether to repel and resist or to bear up under disease, and seems to admit the truth of the view that disease is now more of an asthenic character than in some former times it has been. He considers the phenomena of disease under two large groups—one formed by the action of the morbid influence on the body, the shock, or the force of the impression; the other the reactional, or such as belong to the process of repair, taken in the widest sense. Venesection can render no service to diminish the injurious effect of the shock; it may be of great value to lessen the reaction, if excessive. It does not influence the course of the inflammation as a local disorder, but only the excess of the reparatory process in the accompanying fever. Venesection is also serviceable in relieving pulmonary and cardiac congestion and in relieving pain. The whole paper is well worth perusal.

HENRY KENNEDY writes on the change of type theory of disease. He argues decidedly in favour of the view in opposition to BENNETT, considering *seriatim* the propositions maintained by the latter. He states it as a patent fact, that both animal and vegetable life is subject at times to epidemic influences, which at one period raise, and at another depress, the standard of health. These determine the so-called *constitutio anni*. These were carefully noted by the older writers, and their practice shaped accordingly. It is denied that inflammation is necessarily the same at all periods; the process, abstractedly considered in itself, may be so, but its results vary exceedingly with the state of the system in which it takes place. Instances are cited in which bleeding is both useful and necessary. As regards the influence of treatment over inflammation, Dr. Kennedy assigns to it a much higher position than Dr. Bennett does; he is convinced that diseases are often terminated by judicious remedial measures which previously had wholly resisted the *vis medicatrix naturæ*. He also strongly insists on the need for a discriminating therapeutics,

affirming that no single plan can possibly meet the ever-varying shades of disease, some inflammations requiring wine (alone), some mercury, some bleeding, general or local, or both.

An account of a fever epidemic prevalent lately, at a village named Great Horwood, is given by NEWHAM. Out of a population of 700, 125 were attacked, and 28 cases proved fatal. The fever came on either with rigors, pains in head and limbs, and consecutive symptoms of typhoid fever; or with bilious diarrhœa, followed by great prostration and petechiæ; or with slight malaise, followed on the third day, by dyspnœa and intestinal hæmorrhage. Wine was essential in the treatment, but in the second form of disease required to be given in sago or arrow-root.

The treatment of the anæsthesia of hysterical patients, especially by means of Faradization, is described in some detail, as practised by M. BRIQUET. It may affect the skin, the eyes, the ears, nasal and buccal mucous membranes, the muscles, or the bones. The anæsthesia of the muscles, is quite independent of that of the skin. Patients thus affected have no consciousness of the action of their muscles, if their eyes are averted from the object. This paralysis is cured by a current made to traverse the part, through moist sponges applied to the surface; while the cutaneous anæsthesia is cured by the electric brush being moved over the insensible surface, a moist conductor being applied to a neighbouring part.

ROSTAN reviews the various methods of treatment that have been employed in typhoid fever, enumerating them as the expectant, anti-phlogistic, evacuant, revulsive, and tonic. He often employs the first only. Venesection he employs rarely, except in the first week of the disease, in robust subjects, with well-marked febrile reaction. *Emetics* and *purgatives* he considers no "universal panaceas:" their use must be regulated "sagement." *Revulsives* may act serviceably to bring about general reaction. *Tonics* he uses in all states of debility.

GUIET communicates some interesting instances of pernicious fever in young children. One in particular is very striking, from the extreme prostration, emaciation, constant vomiting, and paralysis of the right arm, which all yielded rapidly to the administration of quinine at first, in the form of enema. The author believes such occurrences to be more frequent than is generally supposed, and quotes the remark that pernicious fever is seldom markedly periodical, but most often presents some prominent symptom, which

deceives the practitioner by leading him to imagine that it is a substantive malady.

An account of a yellow-fever epidemic at Rio Janeiro, which in the space of a month destroyed 822 individuals out of the crew of five ships of war (French), is given by M. BERCHON. He points out several particulars in which it differed notably from paludal fevers. (1.) It is, as a rule, confined to the American continent. (2.) It prevails on the sea-coast. (3.) It is not an endemic, being often absent for some years. (4.) Its course is that of epidemics, having a period of invasion (rapid), of increase, of decline. (5.) One attack, instead of rendering the individual predisposed to relapses, affords an immunity from them. (6.) Yellow fever leaves no such *sequelæ* as paludal fever; no enlarged spleen, &c. (7.) Quinine is far less serviceable in yellow than in paludal fever.

READ publishes the result of 990 re-vaccinations in the 30th Regiment. Out of 193 bearing marks of previous variola, a perfect vesicle was obtained in 113, a modified in 21, none in 51. Out of 695 bearing good marks of former vaccination, a perfect vesicle was obtained in 357, a modified in 130, none in 208. Out of 84 bearing doubtful marks of former vaccination, a perfect vesicle was obtained in 36, a modified in 23, none in 25. Out of 18 bearing no marks of either small- or cow-pox, a perfect vesicle was obtained in 8, a modified in 4, none in 6. He refers to the observations of M. Laune on the same subject, and agrees with him fully in several propositions, of which the most important are the following:—(1.) The practice of re-vaccination is a very important hygienic measure, to which the variolated and vaccinated should be subjected. (2.) Vaccine matter taken from re-vaccinated adults will produce fine inoculable pustules. (3.) With adults, the matter should be inserted more deeply than just below the epidermis. (4.) Lymph from imperfect or modified pustules of re-vaccinated adults will originate, in adults or children, perfect vesicles fully corresponding with the “pearl on the rose-leaf” description.

HUSBAND affirms with reference to the “Instructions for Vaccinators,” lately issued by the Privy Council, that ten years’ experience on a large scale justifies him in stating, the use of lymph, preserved in hermetically sealed capillary tubes, for even months or years, to be equally efficient and safe as the use of lymph direct from the arm.

SCHNEIDER affirms the following propositions relative to the action

of digitalis in inflammatory diseases, and in pneumonia particularly. (1, 2.) Digitalis, given in large doses (two and a half to three and a half grains *secundis horis*) during the progress of an acute inflammation, has not only the power of reducing the pulse, but also of lowering the temperature of the skin, which may fall below the normal figure. (3.) The lowering of the temperature is independent of the coexistent slowing of the pulse. (4.) The slowing of the pulse shows itself before, or simultaneously with, the diminution of temperature. (5.) The slowing of the pulse commences in 24 to 48 hours, and the lowering of the temperature 36 to 60 hours, after the commencement of the medication. (6.) The frequency of the pulse and the temperature continue to fall after the omission of the remedy. (7.) Together with the above-mentioned phenomena, there occurs coincidently a cessation in the progress of the local disease. (8.) The value of the exanthem sometimes produced by digitalis is a matter for further inquiry. (9.) The influence of this drug upon the stomach, and in producing bilious vomiting, ought also to be kept in mind. A highly important warning is given, that during the time when the pulse and temperature are lowered, and the disease is yielding, it is dangerous to sit up, on account of the frequent occurrence of syncope.

LABORDE affirms the local employment of chlorate of potash, as gargle, &c., to be of superior efficacy to its internal administration in purely local diseased conditions. He also finds it to be a prophylactic of mercurial stomatitis.

BARTHEZ has obtained very good results from the injection of chlorate-of-soda solution into the trachea, in cases of croup, after the operation of tracheotomy. It produces the expectoration of shreds of false membrane.

Fucus amylaceus is recommended by ALBERT, of Bonn, as yielding a superior jelly to that obtained from cetraria or carrageen.

BERTULUS recommends very strongly the employment of quinine in all forms of typhoid fever. It does not cure, but keeps off asthma and bad symptoms, and leads to a favorable convalescence.

Potass. iodid. is found by M. ROUSSET eminently effectual in arresting the mammary secretion.

In lead-disease, ELTINGER confirms the beneficial effect of potass. iodid. taken internally, and insists on its administration until the presence of lead is no longer demonstrable in the urine.

BEHNER has observed very great benefit from the employment of

dry cupping in typhoid fever, with chest complication. He applies from 40 to 80 (!) cups in the day, half in morning, half in the evening.

In Algeria, the best remedy for the bite of the viper *Bicornu*, is found to be the expressed juice or the decoction of the *Euphorbia Guyoniana*, a plant which grows abundantly in green tufts, in most of the places infested by these venomous reptiles. For the first dose, eight to ten drops of the juice in water; an hour after, a second, with five drops; and two or three hours after, a third, of five drops; a fourth and fifth, of the same strength, may be given at intervals of three or four hours, if the symptoms continue. The decoction is to be made with a small handful of stalks to about two pints of water, boiling for ten minutes.

The tympanitis of typhoid fever, according to M. Cochenil, is treated successfully by repeated fomentations of liq. sod. chlorinat., diluted with water, applied to the abdomen.

EISELT believes that, in melanotic cancer, the urine may be made available as a means of diagnosis. If treated with nitric or chromic acid, or exposed for some time to air and light, it becomes of a dark colour, without losing its transparency.

HEIDENHAIN, who has practised for twenty-eight years at Marienwerder, in Western Prussia, where intermittent fever and its congeners are rife, makes some interesting observations with respect to the relation between malarious disease and epidemic cholera. On the cessation of cholera in 1831, intermittents ceased entirely in Marienwerder, and did not occur in the epidemic form until 1849. Even in 1844, after an inundation had subsided, and the atmosphere was poisoned with effluvia of decomposing vegetable matter, intermittents did not appear. But in 1849, with the cholera, all the forms of intermittent fever returned with greater frequency; in 1850 and 1851 they increased still more; and in 1852, the bad year of the cholera, they were at their maximum, but did not, as in 1831, disappear with the cholera, but remained the prominent form of disease until the autumn of 1856, since which time they have diminished.

GAIRDNER, in a paper on the treatment of gout, recommends in sthenic cases small bleedings from the arm, or cupping to the neck; the employment of mild, warm purgatives; the vegetable salts of the alkalies; tonics in the later parts of the disease. He does not seem to have a high opinion of colchicum, advising it only to be used

when the malady is declining, as, e. g., in sthenic cases two days after the venesection.

Neem, or *Margosa* (Meliaceæ), found abundantly in India, is a tree whose bark is extensively used by the natives as a tonic and anti-periodic, in skin diseases, old ulcers, &c.

OTTO VEIT gives a good description of hæmorrhagic measles, as observed by himself. He met with it eleven times in 160 cases. Bad hygienic circumstances did not appear to exert any notable influence in producing it, nor were the cases in which it occurred particularly grave, or in any other way peculiar. The spots, about the second or fourth day of the exanthem, assume a deeper colour, and gradually become dark, or even black. Their dimensions vary, some are like flea-bites, others as large as peas or beans (split). Some form bands or patches of large size. They retain their deep colour for a day or two, and then undergo the same changes as ecchymoses. The attendant fever was generally sthenic.

BRAUW and BROERS recommend the old but disused practice of applying ligatures to the limbs in intermittent fever. By interrupting the paroxysm, the habit of continuance of the disease is broken. It may be sufficient to ligature two limbs, but in obstinate cases it is better to act with four.

HEYFELDER observed, at the Military Hospital at Helsingfors, and at the Workmen's Hospital at St. Petersburg, a general prevalence of diphtheritic exudation on the wounds of the patients. An ill-looking, whitish yellow layer formed on their surfaces, which adhered beneath to the tissues, was sometimes dry and consistent, sometimes of pultaceous aspect. In crowded, unhealthy hospitals, the morbid state was evidently contagious, its spread being averted by removal of those affected, and originating from the introduction of a sufferer into a ward previously free from it. Crusell's pyro-caustic, and Pagliovi's hemostatic fluid, were found very useful.

GUNSBERG has used colchicine for five years in the treatment of gout. He gives one-sixtieth grain *ter die*. It purges briskly, and makes the attacks of much rarer occurrence. In acute rheumatism it has been of no avail.

BAMBERGER records the following interesting facts relative to variola, and its co-existence with other diseases. A scarlet-fever patient was taken to the ward set apart for variolous cases, which had been unused for six weeks, continually aërated and fumigated with chlorine. As soon as the patient had arrived at the stage of

desquamation, a well-marked variolous eruption came out upon him. A case of measles, after one day's exposure to the atmosphere of the same ward was removed, but nevertheless on the nineteenth day showed variolous eruption. Two other cases afford evidence as to the possible co-existence of constitutional syphilis and variola. Bamberger infers that a child vaccinated with lymph taken from a syphilitic subject, may, by this means alone, contract syphilis.

Ol. terebinth. has been found successful in trismus neonatorum, administered in frequent small doses.

RANKING publishes a lecture on diphtheria, in which he describes the disease as one wholly new to this country. The symptoms may be very slight at first, and unless the throat be inspected, and the false membrane discovered, no alarm would be felt. In other cases the child sickens, with rigors and vomiting and general prostration, the throat becomes tumid and vascular, and rapidly coated with false membrane, which extends ere long to the air passages, and produces croupy breathing. Deceptive appearances of improvement sometimes occur, even after the breathing has been embarrassed, and presented the croupy sound. The duration varies from two days to two weeks or more. Among the consecutive lesions have been observed paralysis of the muscles of deglutition, as well as a state approaching more or less to complete hemiplegia. Post-mortem examination shows the mucous surface livid and excoriated, but free from ulceration or sloughing. In cases "where there has been much external swelling, the submaxillary glands will be found engorged, and the surrounding cellular tissue infiltrated with a sanious pus." Dr. Ranking disbelieves in the theory of diphtheria essentially depending upon a parasitic fungus growing on the site which the disease affects. He considers the great distinctive mark between diphtherite and croup to be the locality chiefly affected. The former commences in the fauces, and extends to the larynx; the latter commences in the larynx and trachea, and may not extend upwards at all. From malignant scarlatina and putrid sore-throat he thinks diphtheria can always be distinguished by a careful examination of the parts. Infectious he considers it to be only in a limited degree. In the matter of treatment no depleting measures are admissible. Tr. Ferri Muriatis, Pot. Chloras., and quinine may be used; but Dr. Ranking prefers the former, which he also recommends as a local application to the throat, rather than nitrate

of silver. Liq. sodæ chlorinat. has also been found very useful. Tracheotomy he discountenances.

‘The Lancet Sanitary Commission Report on Diphtheria’ will well repay perusal.

The historical introduction, among many facts of interest, contains some showing that the disease is not solely dependent on the unhealthiness of the localities where it prevails. Wherever it has existed, among many varieties of its seat and symptoms, it has always preserved its distinctive characters, and required the same kind of treatment. As yet, no influence or condition has been detected to which the production of diphtheria can be ascribed. It has prevailed at all seasons, and in all weathers; but it appears that excessive alternations of temperature, or of the density of the air, favour its development. Its spread, the writer believes, to be occasioned in great measure by contagion; and relates some remarkable instances in which it was evidently thus communicated. Diphtheric affection of the skin (after the epidermis had been removed) was often observed in the French epidemics; sores of this kind are peculiarly inapt to heal. The first appearance of diphtheria in England (at least, of the present epidemic) occurred in the south-eastern counties, at the beginning of 1857. Almost simultaneously a disease, which probably was diphtheria, prevailed in Cornwall. It spread throughout the country, not appearing by any means to restrict its ravages to marshy and unhealthy districts, though in Essex and Somersetshire it proved very fatal. In some places scarlatina was prevalent at the same time; and there is much reason to suspect that cases of this disease, of diphtheria and of other throat affections, have been confounded together. The writer corroborates the usual opinion, that, as a rule, there is no loss of substance of the affected part; the surface, after the removal of the diphtheric membrane, being found intact, but more or less congested and bleeding at the points where the exudation was adherent. Sometimes, however, ulceration does occur. The structure of the diphtheric membrane shows that it is chiefly to be regarded as altered and thickened epithelium, than as a fibrinous exudation. It consists of molecular particles, matted epithelium-cells of all kinds and shapes, pus, and blood-corpuscles. As to consistence, it may be hard or soft, variously coloured, and more or less putrid. Three distinct forms may be distinguished under which diphtheria has appeared. The first may be called *simple*. There is some fever and headache and difficulty of deglutition. The exuda-

tion is chiefly confined to the tonsils and soft palate. The best treatment is by nitrate of silver locally (ʒss ad ʒj) with Tr. Ferri Muriat. and Pot. Chloras. internally. The second form is *croupal* diphtheria, which is more frequent in children than adults, and has occasioned the greater part of the mortality from this disease. It sets in with active fever, intense headache, engorgement of the glands behind the jaw, and perceptible difficulty of deglutition. The throat and mouth are found covered with yellowish leathery exudation. Symptoms of croupal suffocation soon supervene, from the extension of the diphtheric formation to the air passages; and when this is the case, recovery is exceptional. Violent fits of coughing sometimes expel false membrane, which may have extended far down the bronchi; but this only affords a temporary relief; the morbid process soon renews the obstruction, and, after repeated struggles, death closes the scene. The best treatment is by diligent cauterization with nitrate of silver solution, or muriatic acid, an ipecacuan emetic, and the combination of Tr. Ferri Muriat. and Pot. Chloras., before mentioned. Tracheotomy should be performed before it is too late, if the symptoms show that the disease, without being arrested by the cauterizations, has gravely affected the larynx. The third form is the malignant, in which the most prominent feature is profound adynamia. The glands, submaxillary, parotid, and cervical, and the areolar tissue become prodigiously swollen, and the interior of the throat is covered with a deposit which early exhales an intolerable fœtid odour. Death may occur early through sudden and extreme adynamia, or later in a state of coma. The treatment must be similar to that of the second form, but support by wine and such nutriment as can be administered must be diligently pressed. Liqueur Sod. Chlorinat. is a highly useful local application. Convalescence in such cases is tedious and difficult; there is often loathing of food; and swelling is interfered with to some extent by paralysis of the soft palate or pharyngeal muscles. Hemiplegia may occur, or severe otalgia, amaurosis, and headache.

RAMSKILL makes some observations respecting the local treatment of cases of diphtheria, in which difficulty of swallowing and breathing does not occur very early—not before the end of the third day. He is convinced “that any treatment, such as the application of strong caustics, which causes rapidly increasing swelling of the cervical submaxillary and neighbouring glands, is bad, and sure to be attended by corresponding extension of the disease within and

below the fauces, by declension of power, and increase in the difficulty of breathing, swallowing, &c.” He recommends, in such cases, syringing the throat by Coxeter’s laryngeal syringe, with Liq. Calcis Chlorinat. in chamomile infusion (ʒij ad ʒxv), or with a few drops of creosote in the same. The vapour of these liquids is also to be inhaled, and the throat washed out three or four times a day. A poultice of chamomile flowers is to be put round the throat, and quinine, in infusion of the same, given internally.

A report on diphtheria, by ELLIS, from Crowle, Lincolnshire, gives a total of 133 cases in six months, the disorder not prevailing epidemically for the first two. Out of these 29 were adults, or above the age of 13. The number of deaths was 17. The soil is alluvial, well drained, and highly cultivated. The usual treatment was employed, and its effects were sometimes magical. No scarlatina prevalent.

RIGDEN furnishes a report from Canterbury, stating the number of cases occurring in his practice, of the following morbid states during the two years 1857, 1858:—Of diphtheria 55, of pharyngitis 14, of stomatitis 5, of croup 3, of cancrum oris 1, of scarlatina 57. Of the diphtheria cases 24 were adults, or above the age of 13. The total number of deaths from diphtheria were 13 in Mr. Rigden’s practice, and 13 more occurred in Canterbury during the same time. All the deaths in Mr. Rigden’s cases occurred among the children, and only one adult is found among the other 13 fatal cases. The scarlatina and diphtheria cases were “perfectly distinct.” In several instances the urine was examined, but no albumen was found.

URE recommends following M. Gamberini’s recommendation—the employment of iodide of sodium in place of the potash salt in all cases in which the latter is found useful. It is blander, more assimilable, and better borne by the stomach.

MARCET has found oxide of zinc an efficient remedy in cases of chronic alcoholic intoxication. It induces sleep, removes tremblings of the body and limbs, headache, giddiness, and hallucinations. The dose at first was two grains *bis die*, one hour after a meal, increasing it gradually to six or eight grains *bis die*.

MURCHISON shows, from the records of the London Fever Hospital, that while typhus and relapsing fevers (the epidemic) have, during eleven years, varied considerably, and recently diminished in frequency very much; the endemic fever, typhoid or pythogenic, maintains, and has throughout, a much more uniform number.

In 1856 there were 1,062 cases of typhus; in 1858 only 15. The average of typhoid for ten years is 182; in 1858 it was 180.

Several communications are made respecting syphilisation by **PLEISCHL, MICHAELIS, DANIELSEN, and STENBERG**. The latter, from careful, unbiassed observation of three cases on whom he tried it, arrives at the following conclusions. (1.) In repeated inoculations of an individual with syphilitic pus, the chancrous sores which are produced gradually diminish in size, until at last pus, which shows itself fully capable of inoculating others, comes to have no effect upon the recipient. The time necessary to obtain this immunity varies according to idiosyncrasy and the mode of syphilization. (2.) Syphilitic symptoms already present vanish during syphilisation, and the inoculated chancres heal without further treatment. (3.) Syphilisation has no injurious influence on the general health; on the contrary, it improves during the process.

PANUM has performed a series of highly interesting experiments with the view of elucidating the subject of putrid or septic infection. The details are far too copious for our limits, but we subjoin the principal conclusions. (1.) The putrid poison is fixed, not volatile. (2.) It is not destroyed by boiling and evaporation, even if the boiling be continued ten hours, and the evaporation be carried to complete dryness. (3.) It is insoluble in absolute alcohol, but soluble in water, and is contained in the watery extract of the dried putrid substance. (4.) The albuminoid substances often contained in putrid fluids are not in and of themselves poisonous, but condense the poison on their surface, so that it may be removed from the latter by washing. (5.) The putrid poison, as respects its intensity, can only be compared with snake-poison, woorari, and vegetable alkaloids, inasmuch as 12 milligrammes of it (.184 grains) are almost sufficient to kill a dog.

CLARK, of the Bengal Medical Service, highly recommends the use of selenite as a febrifuge (in place of quinine) and a general tonic. The dose is 5—10 grains for an adult, and 1—3 for children every four hours.

Apropos of two cases in which syphilis followed immediately on, or rather was blended with, variola. **BAMBERGER** makes the following remarks:—"The interest of these cases consists not so much in the circumstance of syphilitic subjects being attacked by variola, but rather in this, that under the eye of the observer the specific vario-

lous pustule passes into the equally specific product of constitutional syphilis, the change taking place in such a manner that it cannot be determined when the efflorescence ceases to be the one and begins to be the other. It is impossible not to assume that the individual efflorescence, as soon as it is placed under the influence of the two forms of disease holding sway over the system, contains also in itself the product of both." According to this, it seems undeniable that if a healthy child were inoculated with vaccine matter from another labouring under constitutional syphilis, the latter disease might also be communicated as well as the vaccine infection.

A highly interesting controversy is debated between LORINSER and REDER, as to the evils arising from the use of mercury in syphilis. The former considers such symptoms as chronic extensive periostitis, circumscribed tophi, caries, necrosis, nocturnal osteal pains, serpiginous skin ulcers, and various skin eruptions, to be the result of chronic mercurial poisoning. He affirms that on testing the urine of various patients who had taken mercury before and after the administration of pot. iodid., the metal was detected in the secretion after and not before the use of the iodide, so that it appeared to have remained in the system until eliminated in this way. Reder replies that on careful examination of the urine of various syphilitic patients who had taken mercury, and were under the influence of potass. iodid., the metal in no case could be discovered. He points out that such symptoms as Lorinser mentions develop themselves without the influence of mercury, and are then equally ameliorated by potass. iodid.; that in other cases where mercury has been taken, they are cured by further administration of mercury; and that potass. iodid. does not, though ever so long continued, obtain always a certain cure, although it effects the removal of mercury from the system. Further, he remarks, that patients who have taken no mercury for syphilis have just the same relapses as those who have taken it; that patients who take mercury for other diseases (as of the eye) do not have such symptoms as syphilitic; and that workmen who are exposed to mercurial influence suffer in a very different manner from those who are the subjects of constitutional syphilis.

The following are some of the results obtained by DUCHEK, at Lemberg, from 120 autopsies of persons dying of intermittent fever. The blood was scanty, contained dark pigment in the form of small, roundish, well-defined granules, which were present in nearly equal amount in all the vessels; they were not contained in pigment cells;

there was no increase of the colourless corpuscles. The spleen was constantly enlarged; only in fifteen cases was there any amyloid or bacony degeneration of it, which always then existed also in the liver and kidneys. This kind of change only affected patients who had been free from paroxysms for some length of time. The liver was mostly of normal size, small only after many relapses, but without alteration of its substance, except that it contained much pigment. Cirrhosis was never observed; from which, as the Lembergians are prone to excessive indulgence in alcoholic potations, Duchek concludes that the efficacy of this cause has been over-estimated. The stomach and the lower part of the ileum were frequently in a state of chronic catarrh. The large intestine presented the catarrhal state in all degrees of severity, up to follicular ulceration, the ulcers being often so close together, that they were only separated by narrow bridges of healthy mucous membrane. The muscular coat was sometimes hypertrophied a little, or its inner layers were destroyed; sometimes the serous membrane was inflamed. In the kidneys pigment was observed deposited in the capillaries and urinary tubules, though albuminuria was not constantly present. Morbus Brightii only occurred in cases where the paroxysms had long ceased. Recent tubercles in the lungs and other organs were not rarely observed, together with traces of by-past intermittents, which had ceased long before the appearance of the first symptoms of tubercle. It was more rare to find fresh or relapsing intermittents together with healed pulmonary tubercular disease. There was nothing very remarkable in the symptoms or course of the disease; the type was usually tertian. Diarrhoea constantly occurred in all the cases of dropsy of notable duration; it was speedily followed by marasmus, and if it lasted fourteen days was fatal. Dropsy occurred in the majority of patients, began usually in the legs, and extended to the whole integument and the cavities. It came on sometimes even after the fifth to the tenth attack, passed away again usually, if suitable treatment was employed, except in individuals who were already lowered by relapses, and in them was almost constantly fatal. It occurred not uncommonly in individuals convalescent from acute diseases, who had previously suffered from intermittents, but had no fresh attacks, as well as in others, as the mere expression and consequence of the malarious cachexia. The dropsy sometimes left the skin, but persisted in the cavities; sometimes the reverse occurred. If the dropsy exceeded three weeks' duration, it was almost con-

stantly fatal. The skin was constantly the seat of pigment deposit in different degrees, increasing with the duration of the disease, but present even during the prodromata. When dropsy set in, it became paler. The cachexia did not always yield with the fever, but sometimes increased in spite of favorable external conditions; its cause did not appear to be simply poverty of blood, but rather it should be regarded as the result of disturbances which are certainly present during the fever, but precede and survive it, and, independently of it, interfere with normal nutrition. These disturbances probably consist in the destruction of the cell-constituents of the blood in the spleen. In an appendix, Duchek states that 8 per cent. of the hospital patients at Lemberg suffered from tuberculous disease, although ague was endemic in the vicinity. Diseases of the nervous system were very rare.

SCHRAMM, in recording his experience of "genuine intermittent" fever at Bodenwöhr, in the Upper Palatinate, mentions that in the year 1856 the cold stage was often uncommonly short, while an abundant sweat came on early, attended with consuming heat; the sweat gave no relief, and was attended with an eruption of shingles of varying intensity, according to its degree, but always abundant, which occupied the abdomen and forearms, and appeared to be rather the cause than the consequence of the sweat.

The following conclusions are deducible from the tables of cases of diphtheria published in the 'British Medical Journal.' (1.) Sex does not appear to influence the liability. (2.) Age is positively influential, childhood and early youth being far more often attacked than more advanced age. (3.) Hygienic conditions, occupation, food, and clothing, purity or impurity of air have not been shown to have much effect, the disease having occurred in many instances where the surrounding circumstances were favorable. (4.) Meteorology. Our knowledge on this head extends no further than that the disease has prevailed during the most opposite states of the weather. (5.) Contagiousness. It appears that, though the disease may be communicated in this way sometimes, this is not the usual mode by which it spreads. (6.) Scarlatina. The evidence is entirely negative as to any connexion between the two diseases. (7.) The symptoms, when first seen, have usually been those of depression, accompanied by dysphagia, and generally external swelling of the neck, either from oedema or enlarged glands. Rigors and feverishness were only occasionally present. Sometimes the disease com-

menced as a common sore throat. Croupy symptoms ensued later. (8.) Time and situation of the leathery membrane. In the vast majority of cases, the exudation was present when the case was first seen; seldom did it commence after treatment (efficient) had been put in force. The situation affected is almost always the fauces or tonsils. After detachment of the membrane, the mucous surface is left livid and bleeding, but not ulcerated. (9.) Microscopical examination. It is only in exceptional cases that the presence of a fungous growth has been discovered. (10.) Complications: none constant, albuminuria rarely present. (11.) Treatment. A general tonic and stimulating plan has always been necessary. Emetics have often had a good effect. Chlorate of Potash and Tr. Ferri Muriat. have mostly been employed, and caustics locally; among the latter turpentine has been used successfully. (12.) Indication and success of tracheotomy. The operation has often been indicated, rarely performed, and never proved successful in saving life. (13.) Mortality. Out of the 74 cases tabulated, there were 26 deaths. From asthenia 14, asphyxia 7, sudden syncope 3, bronchitis 1, laryngitis (occurring during recovery from imprudent exposure) 1. (14.) Post-mortem appearances. The information given is but scanty. In some cases abscess or ulceration had accompanied the diphtheritic inflammation.

HOUGHTON records the histories of four cases of diphtheria, in all of which the sanitary condition of the patients' residence was very bad, while in all other respects the circumstances were favorable to health. In all the cases the disease set in with disorder of the digestive organs, vomiting and purging being prominent premonitory symptoms. In every case great prostration, "singularly marked on the countenance," was strikingly apparent. The appearance of the exudation was different in different parts of the affected surface. On the tongue, lips, and inside of the cheek it formed creamy-looking spots, of various size, like muguet; while on the velum, the tonsils, and the pharynx, it was deposited in a more or less continuous layer, which, in three cases, looked much like wet wash-leather; in one, like half-fluid tallow. A violaceous lividity of the mucous membrane surrounding the exudation was well marked in every case, though it did not always precede or accompany the first deposition of fibrine. Two of the patients had delirium; in none was there any laryngeal affection. Tr. Ferri Muriat., and strong muriatic acid lotion to the affected parts, were of marked efficacy; the acid appeared to dissolve

the exudation, forming a gummy product. The free and persistent use of nutrients and stimulants was all-important.

MURCHISON records two instances in which it appears very probable that the origin of typhus fever may be traced to overcrowding. In the first, seven human beings occupied 1139 cubic feet of space; in the second, eight occupied 1378 feet. The drainage, in the first instance, was good; in the second, it is not specially mentioned. The disease spread by contagion to several persons in the second instance, only to one in the first. No source of contagion could be traced in either.

BUDD discusses at some length the question as to the contagiousness of intestinal, *alias* pythogenetic, *alias* typhoid fever, maintaining the affirmative side of the question. This has been done before by Bretonneau, Louis, Gendron, Ruef, and Piedvache. The evidence adduced by the author himself consists of a number of cases, minutely observed and recorded, with the express object of showing that this form and the maculated typhus are totally distinct species. The following is a brief abstract of part of this evidence. "From the village of North Tawton, where fever was rife, A returned to his home at Morchard, took to bed, and died in five weeks. Two of his children took the disease. B also went to Morchard, and had fever, communicated it to C, from whom it spread to three other persons. L went to Chaffcombe, and lay ill there several weeks with fever; her nurse T, and the husband, T', and seven other persons, took the same disease. One of these seven was sent to Loosebeare, and from her the disease spread to a large proportion of the inhabitants. From Chaffcombe another was sent home to one of two cottages, lying between Bow and North Tawton. He communicated the disease to two persons in the one where he lay sick, whence the disorder extended to every one in the other adjoining. Another married daughter, who had come from a distance to take care of her rich relatives, being at length infected, became on her return home the means of largely propagating the fever in yet another quarter." In all the localities where fever appeared as above detailed, there was no other apparent cause that could have given rise to it except the arrival of a diseased person. The sanitary conditions were just what they had been for years past. The existence of a period of latency, and the immunity afforded by an attack of this fever against recurrences, are dwelt upon by Dr. Budd as characteristics identifying the disease with the exanthematous

group, which "require in the human body, not only a subject for their action, but conditions for their growth and development." He remarks, that in well-drained houses, the propagation of the disease by infection is much less likely to occur, because the intestinal discharges are at once removed and swept away in the sewers. It is in their intestinal excretions that the chief virulence, in his opinion, exists.

GAIRDNER, in clinical notes on fever, admitting fully the distinctness of typhus, and enteric or typhoid fever, remarks on the great comparative rarity during late years of typhus, as, indeed, of all kinds of fever. During the twelve years preceding 1849, the admissions of fever cases to the Royal Infirmary were in four years below 1000, in three between 1000 and 2000, in two between 2000 and 3000, in two more between 3000 and 4000, and in one they amounted to 4693. The immense majority of these cases were either typhus or relapsing fever. During the four years following 1849, the average number of cases of epidemic fever was from 520 to 960 a year. In 1854 the number of cases admitted diminished to between 100 and 200, and it has never since risen above the latter of these numbers. Dr. Gairdner's experience of the fever cases admitted during the last four years has led him to the following conclusions as to the differences of character manifested between them and those of previous years. (1.) The relapsing fever, or synocha, which formed so large a part of the epidemics of 1843-4 and 1847-8, has absolutely disappeared. (2.) Typhus fever has become less fatal to those attacked, than it was ten years ago. Among Dr. Gairdner's cases the mortality has been about one in fifteen; while in the 1848-9 epidemic it is stated by Dr. Robertson as nearly one in four, or excluding all accidental disturbing causes, one in five. (3.) The eruption and course of typhus fever have been modified. The eruption has been peculiar in the earliness of its appearance and disappearance. The course in respect of the earlier occurrence of crisis:—"This crisis is rarely rapid or sudden, usually extending over two or three days, and often barely appreciable till it has been forty-eight hours or more in progress. Nor is it a crisis by sweating, or by any other form of discharge, in the majority of instances. On the contrary, profuse sweating is almost always non-critical and injurious; and the same may be said of diarrhoea and other so-called 'critical' discharges. In all these respects, to say nothing of the eruption, typhus fever differs greatly from relapsing

fever; and the differences are as perfectly preserved in the typhus of 1859 as they were in that of 1848."

BUDD argues for the specific difference between typhoid and typhus fever from the circumstance that not only in Paris, but throughout France, typhoid is the constantly prevailing form, except on some rare occasions, when typhus is imported, as was the case in 1854, on the return of the army from the Crimea. Similarly in Bristol typhoid is the indigenous and common fever of the town, but during the Irish famine typhus was imported by the hundreds of starving and fevered immigrants who came over. This fever was at once recognised by those who saw it, as distinct from the disease which usually prevailed. He regards the intestinal exanthem as the specific eruption of a contagious fever, and argues that the most virulent part of the poison by which the contagion takes effect is cast off by the diseased intestine of the fever patient.

SIGMUND gives a full detailed account of the method pursued by him for a long time in the treatment of various forms of syphilis by inunction with mercurial ointment. He premises a preparatory and enjoins an after treatment. The method seems to require a considerable interruption of the ordinary course of life. He has never seen any beneficial effects produced on the infants of syphilitic mothers, subjected to the method, by means of their milk.

GRUBER examines the influence exerted by mercurials on the nutrition of the human body, while affected by syphilitic disease. He took the weights of thirty males and thirty females suffering under blennorrhoeal discharge, or primary syphilitic symptoms, to whom no mercury was administered, and also of 103 patients affected with secondary disease, who had been subjected to mercurial treatment from the date of their admission into the hospital. The first question examined was, how the weight of the body at the period of recovery stands, as compared to that at the commencement of treatment in patients to whom no mercury was given. It was found that out-patients in poor circumstances increased remarkably in weight gaining often five to nine pounds in twenty to thirty days. On the contrary, those who were better off lost in weight. The second question regarded the difference between the weight of the patient convalescent from syphilis and his weight before the mercurial treatment was commenced. Some of the patients lost, some remained the same, others gained. The author concludes that the

judicious use of mercury in syphilis, if it causes no notable disturbances, exercises absolutely no injurious influence on the patient's economy. The third question relates to the variations in weight of the mercurialized patient, at different periods of the treatment, compared with his weight at the beginning; and to the comparison of these with the variations occurring in the non-mercurialized at the same periods. The tenth and twentieth days of the treatment were those selected for observation. In the non-mercurialized the weight only varied, as was shown in the answer to the first question; in the mercurialized the weight on the tenth day showed constantly a decrease, amounting in most cases to from two to four pounds, in some to eight. On the twentieth day, however, in the latter increase of weight was observed, and led on to the result obtained in answer to question two. Question four relates to the degrees of influence which might be exerted by different mercurial preparations upon the nutrition of the body. A difference was found to prevail during the first twenty days, the bichloride occasioning the greatest loss in weight, though subsequently, in spite of the dose being increased, assimilation went on in an increased ratio. The general result is that mercury judiciously administered, has no injurious influence on nutrition.

BALLARD has carefully studied the conditions pertaining to eighty fatal cases, returned as diphtheria, in the parish of Islington during 1858-9. He classifies the cases as follows, in respect of their truly diphtheritic character: Class I, cases in which he obtained satisfactory evidence of the presence of the true diphtheritic exudation upon the throat, or in which he saw it himself during life. Class II, cases which were certified as deaths from diphtheria by the medical attendant, but in which he obtained no particulars of the appearance in the throat. Class III, cases in which he was assured by the medical attendant that the exudation was absent. Class I consists of 31 males, 25 females—56 total. Class II of 4 males, 9 females—13 total. Class III of 6 males, 5 females—11 total. General totals—41 males, 39 females. As to age, 5 deaths occurred under 1 year, 12 from 1 to 2, 11 from 2 to 3, 13 from 3 to 4, 7 from 4 to 5, 19 from 5 to 10, 7 from 10 to 20, 6 at 20 and upwards. Dr. Ballard concludes,—1. That the disease was comparatively rarely fatal to infants in their first year. 2. That it has been chiefly fatal to children under ten years of age. 3. That up to ten years of age, the greater number of fatal cases were in males, the numbers being

39 males and 28 females; and that in ages above ten years, the preponderance of fatal cases was in females, the numbers being 2 males and 11 females. As to the duration of the disease, in four infants under one year, the main duration was four days; at each of the other ages, it was from nine to eleven days. As to the modes of death, and the period at which they prevailed, it appears from Dr. Ballard's tables, that "the danger from which a fatal result is mainly to be apprehended, in the course of the first week of the disease, is extension of the latter to the upper part of the air-passages, and consequent asphyxia. The sudden deaths in this week are probably due to the same cause, giving rise to spasmodic closure of the glottis. As the malady advances into the second week, the chances of death from this cause are only equal to those from the general prostration of the vital powers. In the third and fourth weeks, the latter is the condition mostly to be dreaded; the sudden deaths at this time being probably due to syncope." As to the social position of the patients, it appears that "the fatality of epidemic sore-throat and diphtheria appears to have been half again as great in the middle as in the lower ranks of society, when a comparison is made with the mortality arising out of diseases of all kinds." As to the relation of scarlatina to diphtheria, Dr. Ballard's researches are opposed to the views of their identity. Of forty-seven cases no less than twelve were persons who had suffered an attack of scarlatina previously. He mentions a case in which scarlatina attacked a child and proved fatal three or four months after its recovery from diphtheria. In no case has diphtheria been communicated from a patient having scarlatina, unless the latter disease was also communicated. The mortality of diphtheria and scarlatina has not varied in a like manner. The relation of diphtheria to other forms of sore-throat appeared very similar to that of diarrhoea to malignant cholera. Out of forty-seven families in which a death from diphtheria occurred, there were only fifteen in which all the other members escaped either diphtheria or sore-throat. Several instances are adduced in which the infectious nature of diphtheria was very apparent. In more than half the number of houses which were examined the sanitary arrangements were more or less defective, in most the drainage was at fault.

EADE, of Norwich, after recording several cases of paralysis occurring as the sequel of diphtheria, subjoins the following

observations : “ In conclusion, I would observe that the phenomena produced by the presence of the diphtheric poison in the system appear to be separable into two distinct classes—the one referable to the throat and air-passages, and showing themselves in the irritation and familiar membranous exudation upon these parts ; the other referable to some *special* chemical influence exerted upon the nervous matter, which shows itself in the first instance, (*a*), by depression of this system, in common with (and probably as the primary cause of that of) the other powers of life ; (*b*), during the whole of the acute stage of the disease, by the relaxed and often perspiring skin, the feeble pulse, the listless and often indifferent manner, &c. ; (*c*), at a later period, by the occasional rapid and sudden sinking, when the patient appears to be steadily progressing towards convalescence ; (*d*), at a still later date, by the occurrence of various degrees of palsy, even after convalescence may have been fairly established. And in reference to the light reflected upon the nature of the disease by the results of treatment, I would say, that as all appear to be agreed that this, even in the early stages of the malady, should be tonic, and in every way such as to stimulate and support flagging nervous power, so the fact that these forms of palsy which occur during convalescence—after failing to get well with alteratives or when left to the unaided powers of nature—readily yield to the influence of the nervine tonics, such as steel, zinc, and quinine, is a further proof of what I have endeavoured to illustrate, that the diphtheric poison is essentially a nerve-poison, one of the effects of which—and that not the least important—is its power of destroying or preventing the evolution of nervous force.”

In the ‘British Medical Journal’ for July 16th, 1859, besides short papers on diphtheria by Messrs. Cross, Bottomley, and Jennings, there is a longer communication from Mr. T. H. SMITH, of St. Mary Cray, Kent. His remarks are in the main confirmatory of those of other observers. He testifies to the remarkable exemption of the pauper class of patients, to the distinctness of the disease from scarlatina, and to the absence of any peculiar localization of the disease in the haunts of fever and cholera. The testimony which he gives as to the change of type of disease, after an experience of upwards of thirty years, is as follows. After stating that he had seen no case of diphtheria before 1857, he proceeds : “ In observing the progress of this epidemic, I have been instinctively led to reflect on the altered type of disease in general. I have myself

no doubt of that alteration in the type of disease, observed since the year 1832, in England. From that date there has been a departure from the old sthenic type, and this has been more pronounced the last few years, until at length a genuine sthenic form of illness is almost, if not quite, unknown amongst us. We have instead low types of inflammation, low forms of cutaneous diseases, low types of fever, having more and more a tendency to the remittent form; and a very marked increase in localities where it was before almost unknown, and where no known local causes have arisen to occasion it, of intermittent fever. What was before a mere chill, a slight cold, thrown off with the first reaction, becomes now an attack of ague."

BOGGE, of Newthorpe, gives a report of twenty-two cases of diphtheria, occurring for the most part in the village of Kimberley, Notts. The soil is ferruginous and sandy, but the sanitary arrangements generally very defective. All the patients were children, from four to nine years of age, and sufficiently fed. Measles prevailed extensively at the same time as diphtheria, and the two diseases often attacked simultaneously, or in succession, the measles generally taking the lead. A table gives the following particulars: 12 females to 10 males; 4 cases of simple diphtheria, 8 of croupal, 10 of malignant; total number of deaths, 7; average duration of fatal cases, $6\frac{1}{2}$ days; longest period, 12; shortest, 5; 9 cases were idiopathic, with 6 deaths; 13 occurred in connection with measles, with 1 death; of the idiopathic cases, 7 were malignant, and 2 croupal.

MURCHISON has examined the question as to the possibility of the coexistence in the human system of two or more diseases which are supposed to originate from specific morbid poisons. (a) As respects the coexistence of variola and scarlatina, he quotes examples of the primary appearance of scarlatina, of the simultaneous manifestation of the two diseases, and of the primary appearance of variola. At the Smallpox Hospital, seven cases have been observed by Mr. Marson in which unequivocal scarlatina supervened on variola. (b) Of the coexistence of variola and rubeola, he gives ten illustrations, quoted from various authors. (c, d, e) Variola has been observed coexisting with erysipelas, pertussis, and varicella. (f) Numerous cases are recorded of the coexistence of variola and vaccinia, the variola being modified in some cases, but not in all. (g, h, i, and k) Vaccinia may coexist with scarlet-fever, rubeola, pertussis, and varicella. (l and m) Rubeola and pertussis may exist together, and even variola, rubeola, and pertussis. (n) In Paris, the

coexistence of scarlatina and rubeola has been observed in numerous instances. (*o*) Typhus and scarlet-fever have not been unequivocally observed simultaneously in the same case. (*p*) Dr. Murchison gives four positive cases of the coexistence of the eruptions of typhoid and scarlatina, the latter having supervened on the former. With regard to the converse, there is no satisfactory evidence. (*q*) Of the contemporaneous, or almost contemporaneous, existence of the symptoms of typhus and typhoid fever, Dr. Murchison adduces eight instances, three of them having been carefully and repeatedly examined by himself. From the foregoing facts the author argues that "the doctrine of the incompatibility of two or more contagious diseases is erroneous; and consequently that upon the mere occasional coexistence of the peculiar eruptions of typhus and pythogenic fever, no argument can be based as to the identity of the poisons of these two diseases."

LEBERT records a case of inveterate and hereditary scrofula cured by the sole use of iodized bread, after all direct medical treatment had failed. From infancy the cervical glands had been swollen and suppurating, the right mastoid process had become diseased, the general health was very bad, and there was extreme anæmia. After eight months' use of the medicated bread, the patient's condition had undergone a complete metamorphosis, the disease was cured, and the health was perfect. M. Lebert remarks, that chronic diseases yield only to the slow and gradual use of remedies.

GIGOT speaks favorably of the local application of perchloride of iron in cases of membranous angina (diphtheritis.)

CROCQ recommends the employment of acid nitrate of silver (a solution of nitrate of silver in nitric acid) in preference to acid nitrate of mercury or solid lunar caustic.

The medical report of the General Hospital at Vienna for the years 1856-7, contains in its first chapter a detailed notice of the typhus epidemic which raged from November, 1855, to March, 1856, with unusual violence. In December and January the increase in the number of typhus cases was from three to six times as great as that which occurred during the same months of preceding years. A peculiarly frequent symptom in this epidemic was the typhus roseola which appeared on all parts of the body except the face. In some cases (the severest) a greater extent of the cutaneous surface was occupied by the maculæ than was left free. The spots appeared on the fifth or sixth day, first, on the breast or arms;

the individual ones were perceptible from five to eight days. Two or three fresh crops often came out at various later periods. Far more frequent was the papulous eruption, which was present in nearly every marked case. The usual seat was the surface of the abdomen, or the thorax. No connection could be ascertained between the appearance of the papulous and maculous exanthem; neither determined nor excluded the manifestation of the other. Herpes zoster occurred with about the same frequency as usual, and occasionally herpes labialis. Inflammation of the lungs was more frequent than in former epidemics, not hypostatic only, but rapidly issuing in exudation, which solidified a large extent of the lungs. In some cases this was preceded by violent pulmonary hæmorrhage. Diarrhœa and bloody stools occurred very often. Enlargement of the spleen was frequent, but by no means corresponded in degree with the severity of the disease. In almost all the grave cases the chlorides of the urine were considerably diminished; their complete absence was always ominous; if it lasted more than twenty-four hours, it was one of the very worst signs. Albumen was also more than usually frequent in the urine; it was rarely followed by Bright's disease, which however appeared in several cases in which the urine contained much blood. In one remarkable case (*typhus ambulatorius*), the patient, a stout journeyman baker, died suddenly, after three weeks of slight feverish disorder, with apparently rheumatic pains not severe enough to confine him to bed. Typhous ulceration was found in the intestines, with a minute perforation, through which some fæcal matter had escaped. In numerous cases infiltrations of the subcutaneous areolar tissue took place, never before the third week, and not during convalescence, but while the disease was at its height. They were very painful, extensive, and attended with stony induration. Suppuration in most cases succeeded, though tardily. Their appearance was attended with aggravation of all the symptoms. The arms, legs, and especially the vicinity of the parotid gland, were the parts oftenest affected. In several cases sudden shrinking of indistinctly fluctuating tumours was followed by abscess in the lungs, the spleen, and the kidneys, and by speedy death. Sometimes there occurred eruptions of pustules and purulent vesicles scattered over the body, attended by increased or relapsing fever, and increased danger. Relapses were not uncommon, and patients suffering with advanced tuberculosis and with intermittent fever sometimes were attacked in the hospital by typhus. The post-mortem appearances

were those of typhoid fever, with the usual intestinal ulcerations. In cases proving fatal very early, nothing was observed beyond hyperæmia of the brain and lungs, some enlargement of the spleen, and a very thinly fluid condition of the blood. In the matter of treatment, nothing of particular interest is mentioned, except that quinine was very often administered in full doses (ʒi in twenty-four hours) in severe typhus, and even in cases of high reaction. The remedy did not fulfil all the expectations that had been formed, but nevertheless some of the results, especially in cases of severe cerebral symptoms, were so surprising as to encourage strongly further trials of it in similar cases. The disease is estimated to have affected 3 per cent. of the whole population (450,890 souls), and the mortality amounted to 25 per cent. of the whole. The districts selected by cholera and typhus were not closely identical.

A detailed account is given of the cholera epidemic of 1855. All the observations go to make the contagiousness of the disease very doubtful. An experiment is related, proving that even in the advanced stage of choleraic collapse absorption of ingesta still takes place. In several fatal cases, shortly before death, small doses of Potass. Iodid. were given, which was subsequently detected in the blood. Under the head of rheumatism and gout, it is mentioned that some cases were observed which showed at first all the symptoms of acute or chronic rheumatism, and did not betray their essentially different nature till a later period. Ice locally, tincture of bryony, and aconite, seem to be the remedies employed in the acute disease. In cases of pulmonary tuberculosis, enlargement of the cervical glands was always observed. [The contrary has been the experience of the Brompton Hospital.—ED.] Numerous cases were admitted of ague and aguish cachexia, a large number being workmen employed on the railroad in Hungary. They were all highly cachectic, and suffered from all kinds of dropsy. These were placed in a separate establishment, and it was observed that whole series of paroxysms came on periodically, following the increasing phase of the moon. The cycles ended at full moon, after having lasted from eight to twelve days. Each cycle mostly consisted of three, five, or seven paroxysms, the smaller number occurring in the tertian, the larger in the quotidian type. The first attacks in a cycle were very difficult to suppress by medicine; the latter yielded readily. In one case, whizzing was observed in all the arteries accessible to touch on the fever days, and on those only. Three times a systolic cardiac murmur was noticed,

which gradually vanished during recovery. During the highest period of the disease the capillaries were found obstructed by pigment-masses in the intensely brown-coloured cortical substance of the brain, in the tissue of the liver, in the splenic pulp, in the Malpighian bodies of the kidneys, and in the glands; and many of the most prominent symptoms of the disease during life corresponded to the post-mortem appearances occasioned by accumulation of pigment. In none of these cases was any trace of tubercle discovered at the autopsy. In the treatment of various neuralgiæ, croton oil externally was found of striking (*éclatante*) efficacy, more so than chloroform. In *pneumonia* it is stated that affection of the right lung was more fatal than that of the left, in the ratio of twenty-one to five. Tartar emetic and ipecacuanha were the principal means employed, in doses varying according to the severity of the dyspnœa. Venesection was employed in individual cases with good results, according to the known indications for its use. With regard to *pulmonary emphysema*, it was observed that dyspnœa, even in extreme cases, was by no means a constant symptom; nor was hypertrophy of the recti abdominal muscles ever discovered. Turpentine inhalations were more useful than any other means in the treatment of the actual disease. A case is mentioned in which the heart was already displaced far beyond the median line, and resumed its normal position completely under the use of these inhalations. One young patient was quite restored by the cold douche; and another, a middle-aged female, by strychnia carried to the degree of producing slight poisonous effects. In inflammatory affections of the mouth and throat, tannin washes were usually sufficient; but in severe cases, threatening suffocation and suggesting a resort to tracheotomy, ice-lumps and pencilling with tincture of iodine proved uniformly successful. Of cases of *variola*, there occurred, in 1856—vaccinated, 412, of which 8 died; non-vaccinated, 51, of which 12 died. In 1857 there were 368 vaccinated, with 24 deaths; 59 non-vaccinated, with 8 deaths. *Psoriasis* was treated with applications of soap and tan, and with a weak calomel and iodine ointment. Arsenic was of little avail. In lupus, repeated paintings with strong tincture of iodine were found most useful, or nitrate of silver with full doses of Ol. Menth. internally. In acne rosacea the application of the following was very useful: Liq. Sulph., ʒj; Alcohol. Rectif., Æther Sulph., ana ʒss.

A report of the results of numerous examinations of the urine and other secretions by HELLER contains some interesting state-

ments. In cases of mercurial tremor, no mercury was found in the urine, except in two. In no case of this kind did the urine show the presence of mercury after the internal administration of Potass. Iodid. Mercury was detected in the urine and fæces after it had been taken by the mouth and rubbed into the skin. The appearance of urate of ammonia in the urine in pneumonia is one of the earliest signs of commencing resorption, and precedes the return of the chlorides. In pneumonia, typhus and puerperal fever, albumen appears in the urine on the disappearance of the chlorides, and *vice versâ* during recovery. In all cases of the most serious exudations the chlorides were not only absolutely, but relatively, in excess. They were always in a far higher proportion to albumen than in the blood-serum. Most gall-stones were found to be formed upon a nucleus of ammonio-phosphate of magnesia.

BRISTOWE records his experience of diphtheritis as follows. The false membrane consists essentially of fibrine entangling epithelium, which latter is scantily present or absent in the deeper and later-formed layers. Fungi are only present in it accidentally. The kidneys appear healthy to the naked eye, but under the microscope have always shown signs of inflammatory disease. Transparent casts, swollen and abnormal epithelium, and traces of intra-tubular hæmorrhage, are the alterations detected. The blood has usually appeared healthy, but in some cases shows a tendency to extravasate. Eruption on the skin and dropsical effusion have not been observed. With regard to the relations of the disease, Dr. Bristowe acknowledges that cases of scarlatina may occur which it would be almost impossible to distinguish from diphtheria. The relation between croup and diphtheria, he thinks also, is closer than is usually admitted. In the matter of treatment he dissents from those who apply strong caustics to the diseased surface, and prefers in all cases mild, detergent gargles. His reasons are the constitutional character of the disease, the impossibility of cauterizing the air-passages effectually, where alone the exudation is likely to prove fatal, the inutility of cauterizing the surface of a thick, false membrane, and the necessity of applying the escharotic also around the diseased tract.

In a paper on the recent Windsor epidemic of typhoid fever, MURCHISON dwells on the following points. (1.) That the disease was only an increase of a usual endemic. (2.) That it prevailed at the time of the year when typhoid is especially prevalent, viz., towards the end of autumn. (3.) That the disease chiefly occurred in per-

sons under the age of thirty, and that both sexes were about equally affected. (4.) That both the upper and lower classes suffered alike ; and therefore (5.), that famine and destitution, the especial causes of typhus and relapsing fever, were not influential here. (6.) That the fever was most prevalent in districts consisting of middle- and first-class houses. (7.) That recent residence in an infected locality predisposed to the fever. As to exciting causes, it appeared—(1.) That the prevalence of the disease could not be attributed to contagion, though in several instances it was undoubtedly communicated from one person to another. (2.) That there was conclusive evidence of its having been produced by the putrid emanations from decaying animal matter, and more particularly from the sewage in the drains. The unusually high temperature of the year 1858, and the protracted drought, are the causes to which Dr. Murchison ascribes the epidemic, which raised, or contributed to raise, the mortality from an annual average (of fourteen years) of 265 to 375. For the details of the evidence on which the above statements are based the reader must consult the paper itself.

A report by LAWSON on an outbreak of yellow fever at Newcastle, in Jamaica, will be read with much interest. The principal conclusions he arrives at are—(1.) That yellow fever prevailed at Newcastle in 1856, in well-defined zones, alternating with others which presented a much smaller amount, and for the most part a different form of fever, attended with a much smaller mortality. (2.) That bodies of men moving from an unhealthy to a healthy locality soon lost the disease, though they carried most of their bedding and their clothing with them, and in the healthy spots did not communicate the disease to others who were from other healthy spots. (3.) Persons going from healthy to unhealthy localities to reside caught the disease. (4.) The activity of the causes of the fever seems to have been much diminished by a course of wet weather, commencing on November 4th, accompanied by a severe storm and heavy rain on the 5th and 7th; and yellow fever disappeared after December 21st, on the accession of strong, cool, northerly winds. (5.) The disease showed itself in its most malignant form in persons who had not been away from Newcastle for many months, and who were not exposed to others previously affected with it, or to their clothes, or other media usually considered as likely to convey contagion. (6.) Persons in contact with the sick in a healthy locality did not contract the disease more frequently, or indeed as frequently, as

those in barracks. Mr. Lawson believes the disease to have originated from local causes, but that these would not have been effective had not an epidemic constitution also prevailed which favoured their action. Yellow fever prevailed during the summer of 1856 pretty extensively in the West Indies and around the Gulf of Mexico. It does not appear that there was anything especially defective in the sanitary arrangements. Although the privies were frequently offensive, yet the rooms nearest to them were not those where the fever prevailed most. The occurrence of yellow fever at a level about 4000 feet above the sea is an unusual circumstance, such an elevation having been generally considered to give immunity.

Diphtheritis appeared at Albany, 150 miles to the north of New York, during the end of last year. Scarlet fever at the same time was rare.

VIRCHOW enters at length into a discussion as to the nature of constitutional syphilitic affections. He dissents from a complete separation of the secondary and tertiary accidents, stating that though a distinction in a certain sense is justifiable, yet it cannot be maintained for the whole disease of any individual, either according to the date, the seat, or the nature of the morbid process. The primary disease of one organ may correspond as to time with the secondary or tertiary of another. He divides the constitutional symptoms into two great groups, one of which has a passive, the other an active or irritative, character. To the latter belong all the various forms of inflammation and new growth met with in secondary and tertiary affections; to the former syphilitic marasmus, loss of hair, and anæmia, with, in some cases, bacony or waxy degeneration of glandular organs. Though he is no antimercurialist, he admits the following facts as reasons for limiting the use of mercury—(1.) Mercury may produce a cachexia *per se*, and so give rise to fresh local disease. (2.) There is no certain criterion of a mercurial cure being complete. Virchow thinks that the special abiding place of the syphilitic poison is in the tissues, to which, however, it is conveyed by the blood.

In a paper on the recently prevalent malarious affections, Dr. PEACOCK states, and illustrates, the increased prevalence of ague during late years. He compares the mortality from this cause in three districts, viz., North Aylesford, in Kent, Huntingdon, and Wisbeach, in Cambridgeshire, since 1850, all these being aguish localities, with a nearly stationary population. The general result

is, that the prevalence of ague was high at the commencement of the period; very high in 1852 and 1853; low in 1855; and again high in 1856 and 1857; and the higher ratio was continued in North Aylesford and Wisbeach throughout 1858. A high temperature and dry weather seem to be the most influential conditions in causing the prevalence of ague and its congeners. Dr. Peacock classes the forms of malarious affection recently prevalent under the heads of—(1) ordinary intermittent fever; (2) remittent fever; (3) spontaneous anæmia, probably dependent on malarious poisoning; (4) various painful and spasmodic affections, assuming a regular or irregular periodic character. After a detailed description of the attacks of remittent fever, which chiefly vary in being more or less active or acute, the author gives some instances of the third class, which he states are characterised by marked and rapidly increasing anæmia, sometimes combined with purpura and jaundice, and occasionally with paroxysms bearing a more or less close resemblance to any ordinary attack of ague, or of an epileptic or syncopic character, and recurring at regular periods. Sometimes the paroxysms have been absent, very imperfect, or irregular. “In the fatal cases of this and the last form of disease the only peculiarities detected on post-mortem examination have been the extreme paleness and thinness of the blood, bloodlessness of the different organs and all parts of the body, and considerable enlargement of the spleen.”

WHITLEY gives cases (twenty-three) illustrative of the treatment of rheumatic fever. He thus sums up: “In fifteen of these cases salts of potash were given, either at first or after the failure of other means. When cardiac complications existed, these remedies were combined with calomel, antimony and opium, and with blisters, while in several of the simple cases of joint-affection they were administered quite alone. In no case did they fail to effect a cure, which even in some cases was sometimes attained very rapidly. The latter remark applies, indeed, to some recent acute cases treated with lemon-juice, but in many instances this remedy unfortunately proves ineffectual.” Large doses of Sodæ Bicarb. (ʒvj ad ʒj in twenty-four hours) in fifteen cases treated by Dr. Weber produced very good effects in five, which were of the acute type, in five or six others only some relief was afforded, and in the remaining no effect was observed.

Three cases of the treatment of rheumatic fever by quinine intoxication, as practised by BEAU in Paris, at La Charité, are given in the ‘Medical Times and Gazette,’ October 29th, 1859.

An antimonial emetic is premised. The cases were under treatment thirteen, fourteen and eleven days respectively. In all the cases the pulse was full and strong, and the phenomena were those of sthenic, acute rheumatism. In all there was cardiac disease, but probably of old standing.

Budd adduces some very proving instances of the production of intestinal (typhoid) fever from contamination of air or water with sewage. The last is briefly as follows. Out of thirty-four good-class houses, forming a terrace, thirteen obtained their drinking-water from a well into which it was subsequently found that sewage matter had leaked. The contamination of the water was first observed towards the end of September, and early in the following October intestinal fever broke out nearly at once in all the thirteen houses in which the tainted water had been drunk. Many of the houses where the fever prevailed were side by side with others that were quite free. Subsequently evidence is adduced to show, that in spite of careful isolation of the sick, fever infection has continued to spread extensively in establishments (such as schools) where no other cause could be assigned for the extension of the disease except that the healthy resorted to the same latrines into which the discharges were thrown which proceeded from the fever patients. In one instance, the women of a large retail establishment alone were attacked by fever, the water-closet appropriated to their use having been the receptacle of the discharge from the first casual case. Dr. Budd also argues for the special poisonous influence of the intestinal discharges, from the circumstance that of the two kinds of fever (typhus and typhoid) the latter is the only one that originates in sewage emanations.

A case of diphtheria, fully detailed, is given by Dr. RANSOME, in which, towards the end of the disorder, anæsthesia affected the tongue, lips, cheeks, neck, and sides of the head, and next day the arms. About the same time the hand lost the power of grasping, and soon after the muscles all over the body became greatly impaired in their voluntary power, so that he could scarcely walk across a room. His sight and hearing also failed considerably. During this time he was improving in general appearance. Ultimately he quite recovered.

SIBSON gives a tabular record of cases of rheumatism (acute) treated by large doses of opium together with other means. From six to twenty-four grains were given in the twenty-four hours, with the effect of relieving the pain more or less quickly, but constipation, sopor, or contraction of the pupil, were never marked. The colo-

cynth given with the opium may, of course, have prevented the constipation. No prophylactic virtue against cardiac affection was exercised by the opium. The average duration of twelve cases recorded as cured is twenty-six days.

MAY gives a brief but able communication on the subject of diphtheria. He strongly commends the use of turpentine (℥ xv for a dose) in the advanced stages of the disease. Tinct. Ferri Murialis he finds the best local application.

MICHAELIS endeavours to show that scrofula and tuberculosis are not the results of a general morbid state affecting the whole system, but of purely local causes. His essay may be usefully referred to, but we cannot give his arguments in our narrow limits.

HEYMANN describes Beri-Beri as a combination of acute rheumatism and intermittent fever. The symptoms were regular or irregular febrile paroxysms, surprisingly great debility, with paretic and hyperæsthetic phenomena, sometimes bilious diarrhœa and vomiting, swelling of the ankle-, knee-, and hand-articulations, seldom œdema and ascites, and only in exceptional cases delirium and continued fever. The only constant alteration observed in autopsies was a thin-fluid, dark state of the blood.

A short statement of all the most important particulars in nineteen cases of diphtheria is given by NEWMAN. His experience corroborates that of most other observers. He records an instance in which it seems probable that the disease was communicated by contagion.

LORINSER endeavours to show that the phenomena usually considered to prove the existence of constitutional syphilis are often really owing to the effect of mercury which has been taken for the cure of the primary affection. He thinks the natural course of constitutional syphilis has never yet been duly studied, and that there is danger of error in too hastily admitting that a patient is not suffering from the effects of mercury in his system, although he may not have undergone regular mercurial treatment. He thinks there is no positive sign whereby to distinguish a syphilitic from a non-syphilitic eruption.

HASSING, of Christiana, sums up a long discussion respecting the nature of mucous tubercles by the statement that they must not be regarded solely as a secondary syphilitic symptom, but also as a primary and local accident; and further, that it remains for future inquiry to decide whether in the last case they are to be considered as of syphilitic or of blennorrhœic character. He says that in

Copenhagen the prostitutes are carefully examined every three or four days, and that it has been observed occasionally that mucous papules have developed in the interval between the visits, no chancre having previously existed. Such were, of course, primary. He has observed, not uncommonly, mucous papules existing for months about the arms and genitals, and especially in children from seven to thirteen years old, without their presenting any other symptom of syphilis or their constitution suffering in any way. Local treatment suffices to cure these.

A long and interesting discussion of the subject of syphilization as a remedial means has been held at Christiana. The lead was taken by Professor BÖCK, who gave the results he had arrived at after four years' trial of the procedure. These may be summed up as follows: (1.) It is positively useful as a remedy against syphilis; it is the only sure means we know which has no injurious effect on the organism, and thus enables us to reject mercury, which Böck believes to be often positively injurious. (2.) It is to a certain extent useful as a remedy against syphilis which has been treated by mercury; but it must also be always used to counteract the latter. (3.) The application of syphilization against other diseases besides syphilis appears worthy of careful trial. The conclusions of Böck were to a certain extent confirmed by a commission of three other physicians appointed to inquire into the subject. The procedure is available in cases of hereditary syphilis, or congenital, as well as in acquired. The general health seems almost always to improve considerably during the successive inoculations.

In a report of diphtheria prevailing at Crowle, in Lincolnshire, ELLIS states that, "with respect to the communicability of the disease from person to person, there have been the clearest and most irrefragable proofs, the period of incubation varying from three or four days to nearly a month." It is remarkable that the Irish residents, whose sanitary condition is utterly defective, have escaped entirely.

The following are the conclusions arrived at by SIBLEY in a paper on the statistics of cancer. (1.) In respect of age, it was observed that nearly all the patients had arrived at maturity, four only being attacked under the age of twenty years. The average age of those attacked with the disease in the uterus was forty-three years and a quarter; in the breast, forty-eight years and a half. The patients with epithelial cancer were somewhat older than those with

uterine or breast cancer. (2.) Childbearing appears as one of the predisposing causes to the formation of cancer, sterility being to a certain extent a protection against it. Among the female cancer patients, 55 out of 315 were single; and among the uterine patients, taken separately, there were 12 single women out of 135. Of the married women 86 per cent. among the uterine patients, and 71 per cent. of those suffering from cancer in other organs, had borne children. The average number of children produced by each married woman was 5.2 among the uterine cases, and 3.89 among those with cancer in other situations. (3.) The duration of life was found to vary greatly, according to the seat of the disease. In the cases of cancer of the breast, those who had been operated on lived 53 months, whilst those in whom the disease was allowed to take its natural course lived only 32 months. (4.) As regards the hereditary nature of the affection, it was found that cancer was traced in $8\frac{1}{2}$ per cent. of the cases. There were five instances in which the patients had two cancerous relations, and in one very remarkable case five relatives were affected with cancer. (5.) Phthisis was traced in 37 per cent. of the families of the cancer patients. (6.) In reference to secondary cancer, it was found that the disease was either local or did not extend beyond the lymphatic glands in about half the cases. There were secondary tumours in 79 per cent. of the breast cancers, in 23 per cent. of the uterine cases, and in 54 per cent. of the instances of true cancer in other organs. (7.) That a great variety of diseases was found in the bodies of those dying with cancer. Tubercle was found in 15 out of 172 examinations; it was recent in 11. (8.) That cachexia appears to be rather an effect of ulceration than the sign of a state of system preceding the evolution of cancer.

NERVOUS SYSTEM.

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Martin.—On Heat-Apoplexy, Coup de Soleil, or Sun-fever. *Ib.*, Jan. 1st, 8th, and 15th, 1859.

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BRADY states his experience of glonoine as confirmatory of Mr. Field's; sickness, faintness, and unconsciousness, being produced by an over-dose; neuralgic pain being speedily and sometimes permanently relieved by a smaller. One minim of Morton's solution is a sufficient dose.

In speaking of the diagnosis of hysterical puerperal convulsions from epileptic, KIDD says, that he observed in two cases the symptoms to be quite the same as in epileptic attacks, excepting that consciousness was retained, and therefore agrees with Dr. Todd as to loss of consciousness being pathognomonic of epilepsy.

HANDFIELD JONES publishes a paper on inhibitory influence, in which the view is maintained that sensory or afferent nerves being affected by some injurious, abnormal impression, induce a paralytic state of the nervous centre with which they are connected, and that in this way musculo-motor nerves, vaso-motor nerves, or nerves of special sensation, or common, may suffer paralysis more or less complete. This view is a modification of the one previously adopted by Mr. Lister.

A case which came under the care of PARKES affords a good instance of the important truth, that the most marked and severe cerebral symptoms, proving ultimately fatal, may occur without any anatomical change discoverable on the most careful inspection.

CAMPS, in his remarks on hysteria, says that he regards it as a connecting link between bodily and mental disease. He considers the functional activity of the brain and spinal cord to be perverted, and rather from some morbid state of the blood than from organic change of the nervous tissue.

BRITTAN records a most interesting case of entozoon in the brain. The creature had the head of a *Tænia solium*, and a long, segmented neck; it was enclosed in a cyst lodged in the fourth ventricle. The symptoms were, pain in the head, irritation of the stomach, and frequent vomiting, prostration, loss of appetite, and some febrile excitement. At a later period she was unable to lift her head from the pillow, from the dead, dull, heavy pain, and sensation of weight; nor could she move it, on account of excessive pain and stiffness of neck. On two occasions she had vomited much blood. She died

without any convulsion. No notable disease was found except the entozoon; the heart was large and fatty, the stomach free from ulceration.

HANDFIELD JONES publishes a third series of cases of nerve-disorder, consisting of instances of paralytic affections, which appeared to depend solely on functional derangement of the nervous centres, or nerves.

DE MORGAN narrates the particulars of a case of tetanus (traumatic), in which recovery took place under the administration of Tinc. Aconiti (Ph. Lond.), \mathfrak{m} . v—viij, 2dis horis. A similar but more severe case is quoted, as having recovered under the same treatment, at Carlisle, under Mr. Page's care. A trial was made in Mr. De Morgan's case of strychnine, which has been stated in some American journals to have proved successful in several cases, but this agent proved useless, if not injurious. About three weeks after the tetanus had quite disappeared, some trials were made upon the patient as to the effect of the tincture of aconite. It now speedily produced marked symptoms of poisoning, which appeared after three doses were taken.

BRIQUET describes two forms of muscular rheumatism, in which Faradization is of great efficacy. One is induced by exposure of the eye to full sunshine, the pain is seated around the orbit and in the forehead, and resembles a megrim (hemicrania). To prevent its recurrence, gray glasses must be worn for half an hour after going out. The other affects chiefly the upper part of the head, and the neck, and is produced by sleeping during the night with the head bent forward. It always occurs in the morning, and is avoided by placing the pillow so as to avoid the tension of the muscles. These pains seem neuralgic rather than rheumatic.

A case of aggravated neuralgia of the divisions of the trifacial nerve was successfully treated by MICHEL by section of the gustatory nerve, after division of the supra- and infra-orbital, buccal, and mental nerves had failed to procure more than temporary relief.

A case of cerebral disorder, caused by exposure to cold and wet, is recorded by Fox. He entitles it delirium tremens, but is positive that no indulgence in intoxicating liquors had anything to do with its production. After an emetic to produce diaphoresis, and a mustard poultice to the neck, all the symptoms disappeared, having lasted only six or seven hours.

Inhalation of chloroform for four and a half hours proved successful in a case of poisoning by two grains of strychnia. (Jewett.)

Alisma plantago and *Peucedanum Austriacum* recommended as anti-epileptic remedies.

GILLETTE finds great advantage from treating chorea by the following method. For three days tartar emetic is given, in quantities increasing from $3\frac{1}{2}$ grains the first day to 5 grains the third. Then three days' rest. After this three more days of tartar emetic, beginning with 5 grains, and reaching $9\frac{1}{2}$ grains on the third. Again three days of rest, and so on. The average duration of the treatment is seventeen days. The tartar emetic is not given with the view of producing vomiting; the object is to obtain tolerance of it.

BOURGUIGNON, in speaking of the treatment of chorea, insists on the good effects of regulated gymnastic exercises, baths of sulphuret of potassium, and electricity, associated, if need be, with other means adapted to particular cases.

PIRRIE describes the various forms of sunstroke which he has witnessed in India, their predisposing causes, the pathology of the disease, and its treatment. In the severest form death occurs with great rapidity, preceded by perfect unconsciousness and gasping respiration. In the others the respiration is embarrassed, hurried, and gasping; there is extreme prostration, and giddiness or confusion of vision. The predisposing causes are all such as produce exhaustion, and the want of acclimatization. Extreme engorgement of the lungs was the most marked morbid appearance observed in autopsies. In all except the most rapidly fatal cases death is by apnœa; in them it occurs as the result of a shock to the brain. Venesection, in his experience, was always prejudicial, but persevering cold effusion to the head, diligent friction to the limbs, brisk purgation, and the administration of diffusible stimuli, with sinapisms, &c., to the chest, were of much avail. Continual arousing the patient, as in coma from opium, seemed to be advantageous sometimes.

WYTHES records three cases of apoplexy occurring in young children who previously had been in good health, except a pain about the left instep of the first. There was effusion of blood within the skull in all three, and marked softening of the brain in one.

Case of tetanus recorded by SKUES in a girl, æt. 9, who recovered under treatment by Indian hemp, nourishing broths and wine. She took from 4 to 18 grains daily, and was kept in a continual state of narcotism.

A case of hysteria simulating hydrophobia, with fatal event, is recorded by GUGIN.

BURDACH has never failed for thirty years to cure tic douloureux with the following medication: Hyd. bichloridi, gr. $\frac{1}{30}$ to $\frac{1}{30}$ Tinct. Semin. Colch., m8, 2dis horis. It is essential to give the bichloride in the liquid form.

DE FRANQUE records the following curious instance of loss of smell and taste. A labourer, æt. 34, got overheated and chilled, and had in consequence a stiff neck, which got well with poultices. Some days afterwards he was found to have lost the senses of smell and taste, and a small, sensitive tumour was discovered opposite the last cervical vertebra. Repeated blistering of this tumour restored first the taste and afterwards the smell.

An interesting case of epilepsy treated by tracheotomy is recorded by RICCARD. A single female, æt. 30, had suffered for seven years from attacks, latterly occurring two or three in a day. Tracheotomy was performed October 5th, 1856, and she continued free from decided fits till the beginning of May, 1857. She had then some severe fits, and it was found that the tube had escaped from the trachea, and was lying outside it. The tube does not seem to have been replaced, and she died on May 31st.

An interesting case of chorea, associated with hysteria and followed by temporary dementia, is recorded in the 'Lancet,' March 12th, 1859. The patient was cured by Liq. Arsenic., shower-baths, and some doses of morphia.

A case of hydrophobia is recorded by WRIGHT, occurring in an artillery soldier at Aldershatt. Death occurred about six weeks after he was bitten by a dog which had appeared sickly and had foamed at the mouth. The symptoms lasted about four days.

LONGMORE reports his observations on sixteen cases of heat-apoplexy occurring at Barrackpore, between May 23d, and June 14th, 1858. None of the officers who wore solar helmets, were attacked. Only three of the cases occurred in men exposed to the direct rays of the sun. Ten cases occurred between 2 and 5 p.m.; five between 5 and 9½ p.m. The weather was exceedingly hot, sultry, and oppressive, the thermometer at 97° or 95°. During the period in question ninety-four cases of remittent fever occurred. Both this disease and heat-apoplexy were put a stop to by the first heavy fall of rain in conjunction with a thunderstorm. Nervous

depression seemed to predispose to the attacks. Irritability of the bladder was a constant and early symptom. The symptoms and treatment were similar to those observed by others. Venesection was not found useful.

MERZ reports that he has found hemicranial pain, attended with increased determination of blood to the head, permanently removed by compression of the corresponding carotid artery. The pressure may be applied by the thumbs, or by a kind of truss.

SCHLEGER records a case in which paralysis of the right facial and hypoglossal nerves appeared to depend on dilatation and rigidity of the external carotid.

BANG devotes a paper to the consideration of the forms and treatment of giddiness. Besides giddiness arising from various easily removable causes, he enumerates (1) hyperæmic; (2) anæmic, or nervous; (3) dyscrasic; (4) sympathetic; (5) traumatic; (6) organic. As well as the ordinary measures, he recommends, as a specific in certain cases, guaiacum.

MAX-SIMON, in his prize essay on nervous giddiness, considers the idiopathic, the sympathetic, that occasioned by venereal excesses and attending on hypochondriasis, that occurring during convalescence from serious diseases; and that accompanying sea-sickness. In his treatment there is nothing remarkable.

FORGET dissents from the opinion that rheumatic meningitis should be considered a distinct species from meningitis of a different origin. Its symptoms, its perils, its treatment, are the same as in simple meningitis. He recommends the free use of opium, which has proved itself most effectual in meningitis attending on typhus, pneumonia, and erysipelas. The presumed hyperæmia of the brain is no counter-indication, and is not always present.

FRANK relates the particulars of five cases of facial neuralgia, in which section of the affected nerve was practised with a successful result in four. In some subjoined remarks the author expresses his opinion that congestion of the trunk of the nerve is one of the most frequent causes of neuralgia, and that the pulsation of the accompanying arteries affects the nerves injuriously. Central neuralgia, he thinks, is more common than peripheral or sympathetic. He strongly recommends resection in severe cases of neuralgia, even though the disease be diagnosed as central. The objection from the law of peripheral nervous action, he thinks, is set aside by the results of the operation and by the cutting off external causes

of irritation. In the first case the operation had to be repeated, and in the other cases there is no proof given that the relief from pain was permanent.

PARAVICINI recommends in cases of mental neuralgia, division of the dental nerve before its entrance into the bony canal, which he states can be easily effected.

GJÖR has given a contribution to our knowledge of nervous disorders produced by syphilis. He reports thirty cases, which he divides into two classes—(a) those in which paralysis came on while manifest signs of syphilis were still present; (b) those in which they had disappeared, and treatment had been omitted for a longer or shorter time.

A *résumé* of existing knowledge respecting hydrophobia is given by THAMHAYN. It is well worth reference by inquirers, but is far too long for our limits.

A curious case of “saltatory reflex convulsions” (as he terms the state) is recorded by BAMBERGER. The patient was a youth, æt. 19, convalescent from pneumonia. As soon as he touched the ground with his feet all the muscles of the lower extremities fell into a state of tetanic rigidity, interrupted by the most violent sudden contractions, which threw the patient upwards, and during their rapid recurrence increased in intensity, so that the patient had to be supported. At the same time the face was flushed and distorted; the pulse accelerated and extremely forcible; distress was experienced, but no pain, only great exhaustion after the attack. The moment that the patient sat or lay down all the movements ceased. If, while lying in bed, the soles of his feet were pressed, the same phenomena appeared, but with much less intensity. After some days the distortion of the features became permanent, the tongue was put out and withdrawn hastily and by jerks, the heart’s action, even during rest, was violent, the respiration panting, both irides rapidly contracted and dilated, trembling movements came on in the right foot, the reflex contractions were produced by touching any part of the feet, and affected even the unirritated foot. All else was normal, there was no tenderness in the course of the spine. Bamberger regarded the symptoms as dependent on undue reflex excitability of the spinal cord, and prescribed sedatives and cold affusion. The disorder was at first increased, but by steady perseverance in the same was gradually subdued. A slight attack of typhus preceded complete recovery. A similar case oc-

curred in a female, æt. 30, who suffered from chlorosis and gastralgia. Treatment was of no avail; she recovered spontaneously.

TROUSSEAU publishes a case of hysterical tremor a good deal resembling chorea, but distinguishable, as he remarks, by the greater power of co-ordinating the movements.

BRIQUET gives the following description of the anæsthesia of the hysteric. It does not occur in all cases; leaving out of consideration the very frequent anæsthesia of the left conjunctiva, it was only met with in 60 per cent. It occurs not only after paroxysms, but sometimes before their occurrence. Psychical influences favour its supervention, and so do cutaneous hyperæsthesia or muscular. It may come on gradually as an alteration of the quality of sensation, or suddenly, and is then usually attended by lowering of the temperature and weakness of the circulation in the anæsthetic part.

A case of convulsive sneezing is recorded by MOSLER, in which a scrofulous female, æt. 22, long subject to disease of the right ear, suffered during eighty hours from attacks so frequent and violent, that she is computed to have sneezed 50,000 times, and the whole neighbourhood was alarmed! She was amenorrhœal, and a month after the first attack the sneezing returned. It often reappeared subsequently, and appeared to be relieved by discharge from the diseased ear. Warm baths, with cold applications to the head and alternate cold and warm douches to the spine, seemed to control the paroxysms. Chloroform produced a very temporary effect.

LAYCOCK argues strongly against the ordinary plan of treating delirium tremens by opium and stimulants. He finds that the ordinary cause of the attack is not the withdrawal of the accustomed stimulus, but a prolonged debauch. The patient should be kept quiet, the elimination of the alcoholic poison promoted, food administered, and complications mainly consisting in sub-inflammatory states of the stomach, duodenum, liver, or kidneys, should be attacked by mild sedatives and depurants. Experience has shown repeatedly that sleep will come on naturally without having recourse to any narcotics.

WATSON, of Southampton, bears strong testimony to the efficacy of croton-oil liniment applied to the scalp in grave and almost desperate cases of hydrocephalus. In one case where leeching, cold lotions to the shaved head, calomel, and antimony, had been employed unavailingly, improvement soon took place after pustulation had been produced in this way, and subsequent recovery.

FULLER has lately observed a remarkable circumstance connected with the administration of belladonna, viz., that children can tolerate much larger doses than adults; it seems that a much larger dose than is usually prescribed is well borne, from the first, by children of tender years, and that the dose may be safely increased, rapidly, but gradually. One girl, *æt.* 10, took 70 grains of *good* extract daily, and a total amount of 1019 grains in twenty-six days; while another, *æt.* 14, took 37 grains of atropine in eighteen days. This extraordinary tolerance, on further research, did not appear to depend on the existence of chorea, as in the above cases, seeing that other children took similar doses without experiencing any remarkable effects. The chorea was not benefited by it so much as might be expected. The drug was found in abundance in the *fæces* and urine, proving that it was not decomposed in the alimentary canal, nor altogether unabsorbed into the blood. Fuller suggests the administration of belladonna in larger doses than are usually given in pertussis, epilepsy, and other spasmodic affections.

LEVICK, of Philadelphia, in some remarks upon sunstroke, compares the post-mortem condition in this disease with that observed in typhus, and finds, moreover, an "astonishing identity in the symptoms presented during life." He thinks, "these facts indicate that there is in sunstroke, as there is in typhus fever, a poisoned condition of the blood, and that it is to this that we are to refer the various morbid phenomena of the disease, an explanation which has also been given in cases of death from lightning. I cannot, however, divest my mind of the belief that in sunstroke this unnatural condition of the blood is a secondary affection, not the primary one; that there is, in the first place, an exhaustion or depression of the nerve-forces which regulate nutrition, respiration, circulation, and the other acts of organic life." In the way of treatment, he counsels cold effusion, at intervals, over head, chest, and epigastrium, until consciousness and the power of swallowing return. If, however, the depression be extreme, the cold affusion must be used cautiously or forborne. In the same condition ice to the head must not be applied indiscriminately. In some cases oil of turpentine may be of service, both by the mouth and rectum. Frictions of the surface of the body with ice have proved advantageous.

In a paper entitled 'Affections of the Spinal Column,' by PACKARD, a case is reported in which a little girl, *æt.* 13, had had several attacks of rheumatism, which were succeeded in the fall of 1857 by

paraplegia. She recovered under the use of phosphate of iron, with powerful counter-irritation by moxas to the spine. Shortly after, the rheumatism recurred severely, affecting all the limbs and the pericardium. In the fall of 1858, after she had shaken off the rheumatism, the paraplegia recurred, and continues still. Sensibility is lost, as well as motor power. The author asks, can we assume any connexion between the two diseases? "And if so, why is it that pain is so insignificant a symptom in the former, and so excruciatingly severe in the latter? Why is it, moreover, that the two conditions come on at different times, yield to different remedies, and disappear independently of one another?"

BRIQUET, after considerable experience of lead colic at "La Charité," has discarded all other theories as to the seat and production of the pain in favour of that originally promulgated by Giacomini, who affirms that the pain in lead colic "has its seat, not in the digestive tube at all, but in the muscular parietes of the abdomen and the diaphragm." His reasons for holding this opinion are—(1) that moderate pressure, affecting only the skin and subjacent muscles, will produce in patients suffering under this disease acute pain, identical with that of a paroxysm; (2) that acute pain can be produced in these patients by pressure over parts of the abdominal muscles beneath which there is no intestine; (3) that the pain of colic often extends to the muscles of the back and limbs. The constipation, he thinks, has no connexion with the abdominal pain, and the nausea and vomiting he looks on as sympathetic disturbances. The treatment he employs is cutaneous Faradization to remove the abdominal pain, sulphur baths every other day, sulphuric acid lemonade (Oiv daily), ʒss—ʒij of alum in solution, and gr. j of watery extract of opium each night. The pain does not disappear until the Faradization has well reddened the skin, which, we are warned, is often a pretty severe proceeding.

In some remarks on the danger attending the use of chloroform, MARTIN observes, that it must not be supposed that the shock of an operation is altogether annulled by obtaining anæsthesia. He rather considers that this is likely to be greater when the powers of the great organs are depressed by the influence of chloroform.

MARTIN contributes some valuable experience with respect to the disease known as "coup-de-soleil." He points out, that direct exposure to the sun's rays is by no means necessary, many fatal seizures occurring in one division of soldiers about 3 a.m., long before the

sun was above the horizon. It has been observed that newly arrived recruits are more prone to suffer than those who are acclimatised. In some cases the native soldiers have escaped altogether, while the European suffered severely; in other instances the European officers have remained free, while powerful native troopers fell off their horses, vomiting, convulsed, cold, and covered with clammy sweat. The symptoms are universally "vertigo and headache, with sense of burning in the eyes, a full and frequent pulse, vomiting, great heat of skin, and a devouring thirst, oppressed respiration, swollen face, blindness, sinking of the pulse, clammy sweat, exhausted nervous energy, faltering of the tongue, some convulsions, and speedy death." There is a close resemblance between the phenomena of heat-apoplexy and those of the ardent fever of the hot Bengal season, the chief difference being that the former disease proceeds at a much greater rate than the latter. Extreme congestion of the lungs is the most constant pathological alteration, the brain being also congested, but in a less degree. The slower the progress of the case, the greater is the degree of cerebral congestion; in rapidly fatal cases, there have been but slight traces of cerebral disease. The treatment may be shortly summed up, as, *timely* bloodletting, general and local, with simultaneous administration of diffusible stimuli and laudanum, cold applications to the head, purgation, antimonials, rest, darkness. If the time for bloodletting is past, heat is to be applied to the extremities, sinapisms to the epigastric region, and cold affusion to the head and chest, with warm aloetic purgatives and frictions to the surface. The means of preservation are abstinence from spirituous liquors and from excess of animal food, protection of the neck and head, an open order of marching, and a flannel suit to change afterwards.

HARVEY considers the question as to the comparative value of bloodletting and purging in the early stage of the acute hydrocephalus, and as to the extent to which each of them should be carried. He assumes—(1) that the diagnosis of the disease "may in most such cases be confidently made out within a day or two from its onset; (2) that the disease is of the nature of acute inflammation, either simple or associated with recent tubercular deposit on the membranes of the brain; (3) that in a large proportion of cases it may be readily cured if brought under suitable treatment within the first two or three days." It is, however, admitted that there is a certain number, "and it may be an actual majority, of cases, which

no practice will save, and which at the first no head can clearly diagnose." These the author excludes from his consideration. He passes in review the treatment practised by Dr. Maxwell, of Dumfries, Dr. Abercrombie, and Dr. Watson. The first bled largely and more than once from the jugular, employing at the same time free purging as an accessory means. The second seems to have relied chiefly on purging, while not neglecting bloodletting. The third recommends only moderate local depletion, and "the regulated exhibition of mercury in small doses (as a purgative chiefly)." After reference to the facts that bloodletting greatly facilitates the operation of purgatives, and allays the irritability of the stomach, Dr. Harvey contends that bloodletting displays its chief efficacy in the *early* stages of the disease in question, while purging is more appropriate to the later stages when the more alarming symptoms have declared themselves. Dr. Maxwell's treatment is said to have been remarkably successful, the results showing sixty recoveries out of ninety cases. In answer to the first question, then, Dr. Harvey concludes that bloodletting is to be regarded as the chief, and purging as a secondary, remedy. With regard to the second question, there exists no doubt that purging "should be used to the fullest extent consistent with ordinary prudence," while bloodletting, both general and local, in acute cases, is to be employed, not only early, but as fully and repeatedly as can be considered safe. In the later stages free bloodletting may be injurious by increasing the asthenia which the state of the brain has induced. In cases of more chronic course also bloodletting has less control over the morbid action and is less tolerated.

BARRALLIER recommends the hydrochlorate of ammonia as the best therapeutic agent in cases of nervous headache. It is to be given during the paroxysm, three doses at half-hour intervals. If administered during the absence of the headache, no remarkable effects are produced. "Besides the temporary relief, it was observed that in cases of headache returning in periodical paroxysms several times a month the intervals gradually became longer, the attacks diminished in intensity, and ended by disappearing completely, after having been several times arrested by the ammoniacal potion." It has proved effectual in idiopathic hemicrania and menorrhagia, in headaches consequent on repeated attacks of intermittent fever, those occurring in the decline of low fevers, and in the period of irritation in typhus.

OPPENHEIMER draws attention to the cure of obstinate neuralgia of the fifth pair by previously curing existing catarrh of the nasal cavities.

BARWINKEL records a case of anæsthesia dolorosa of the right fifth nerve, with paralysis of the sixth olfactory and nerv. petros. superf. major of the same side. The symptoms had lasted six months, and were attributed to a chill, but as there was a history of constitutional syphilis eighteen years before, and some swelling as from caries of the hard palate, the diagnosis of a bony enlargement pressing on and irritating the nerves involved was made. Under Iod. Pot. almost complete recovery ensued.

ROBERT records a case of syphilitic hemiplegia affecting the right side, which was caused by Potass. Iod. c. Hydr. Protiod. The right side of the face was paralysed, there was continual violent pain in the left side of the head, radiating from thence over the whole. The organs of sense were unaffected.

A well-marked case of reflex paraplegia, resulting from prolonged exposure to wet, is recorded by MOORE. Strychnia was administered to produce its special effects, and recovery ensued in two days.

STONE communicates shortly the details of sixteen cases of chorea treated chiefly by Zinci Sulph., and compares the results with those of other cases treated by ferruginous and arsenical remedies. In most cases the cold or tepid shower bath was also used. "The general statistics are as follows: Of 16 cases treated by sulphate of zinc, 13 went out cured, 3 relieved, but 2 of the latter were in a fair way of recovery, and may probably be set to the credit of the medicament. On the other hand, three of those ultimately cured owed their improvement partly to ferruginous preparations, and in one case the zinc had no effect whatever. It may, then, be stated generally, that advantage was derived from the zinc in 14 out of 16 cases. The longest stay in the hospital among these cases was 123 days; the shortest, 14; the average stay, 44·6 days. Fourteen cases were treated during the same period with preparations of iron; all were cured. The longest stay in hospital was 161 days; the shortest, 6 days; average stay, 44·2 days. Twenty cases were treated with Liq. Potass. Arsenitis; 18 cured, 1 relieved, 1 died. The longest stay in hospital was 55 days; the shortest, 6; average stay, 26·3 days. Average stay in hospital of the 50 cases submitted to three principal remedies, 27·2 days." The cases put under the arsenical treatment were rather more severe than

the others, yet its action seems to have been more certain and speedy.

BRIQUET endeavours to show—(1) that the occurrence of hysterical paroxysms is only apparently accidental and arbitrary; that, on the contrary, all the phenomena depend upon positive conditions which can be predicted, and which belong to the simplest laws of pathology. (2) That in the great majority of cases hysterical paroxysms can be accurately distinguished from those of epilepsy and eclampsia. And (3) that art possesses means capable of suppressing them at our pleasure. He entirely dissents from the view which regards the uterus as the starting point of the morbid process, as in his cases (254) indications of this could only be traced in nine. He considers, that in its simple form the hysterical paroxysm is nothing but an expression of some psychical affection, or painful sensation, and he derives all the manifold varieties of the phenomena from one of the five following conditions: (1.) Certain groups of muscles are either of themselves unduly irritable, or subserve the expression of some habitual temper, or by frequent use have come to act semi-automatically. (2.) Certain physical or moral peculiarities may determine the prominent features of the paroxysm. Thus, the spiteful bite and strike those around them, the violent-tempered have violent convulsions, &c. (3.) The exciting cause of the attack is influential. (4.) So is the age. (5.) The impressions during the intervals of the paroxysms have most influence of all; they determine the prevailing character of an epidemic. The material and psychical symptoms are only the unrestrained, involuntary repetition of the regular bodily and mental condition during the period of health; in short, an analogue of a dream. The diagnosis turns on the following points: the limitations of the convulsions in epilepsy compared with those of hysteria; the suddenness or slight warning of the epileptic seizure contrasted with the precursory phenomena or manifest cause of the hysterical; the presence of foaming at the mouth in one, and its absence in the other; the shorter duration and consecutive sopor of the epileptic, compared with the frequent prolongation, rarity of sopor, sobbing and crying, and following depression, which distinguish the hysteric. M. Briquet gives chloroform in the way of inhalation during the paroxysms, and also applies it locally to any painful part during the interval.

INZANI relates a cure of a very severe neuralgia of the lingual nerve

by division. The dental nerve was previously divided without success.

A case of urethralgia, by CORTES, yielded to frictions of chloroform liniment after quinine and various other means had failed.

A successful case of division of the popliteal nerve for neuralgia in the leg is related by HOOKER. After the operation some ulcers on the leg speedily healed, the pain disappeared, and the health improved.

A case is recorded by SLOANE, which he entitles "neuralgia of the brachial plexus simulating wasting palsy." Wet cold seems to have been the exciting cause. After exposure to this every day for a week he was attacked with violent pain in the left shoulder, left neck, and upper arm. The pain continued for eight months or so, and then gradually ceased; but the deltoid was then greatly wasted, and he had no power of flexing the left elbow. Sensation was at this time perfect, but five months later was greatly impaired in the left upper arm. Two months later, he suddenly lost the use of all his limbs, and gradually sank in the course of five days, retaining his cerebral functions unimpaired to the last. The same report also gives the notes of a case of wasting palsy.

An account of the effects of lightning upon eight persons—four males, four females—is given by FLEMING. These were chiefly scorching, as by intense heat, of parts of the dress and person, and phenomena of nervous prostration, numbness and debility. Four of the whole number appeared at first to have been struck dead, but in half an hour recovered sufficiently to be removed to their homes. The scorched parts of the body became the seat of troublesome sores, which were some months in healing.

Case of hemiplegia, with symptoms resembling paralysis agitans, and movements like those of chorea, cured by a pill containing *Ol. Crotonis*, $m\frac{1}{2}$; *Extr. Col. co.*, gr. iij; o. n., in eighteen days.

A paper on alternating palsies, especially hemiplegias, as the consequence of disease of the pons Varolii, by A. GUBLER.

An account of a remarkable case of paralysis of the motor nerves of the face and of the upper extremities, as well as of the tongue and œsophagus, is given by DUMENIL. At the post-mortem the facial, hypoglossal, and anterior spinal roots, except the lower, were found notably atrophied. The gustatory, glosso-pharyngeal, chordæ tympani, fifth pair, and the vagi, were quite normal.

WILKS, in a paper on sanguineous meningeal effusion, sponta-

neous and from injury, draws attention to the occurrence of dubious cases, in which, except disease of the blood-vessels, the autopsy affords no means of determining whether the hæmorrhage was spontaneous or not. The symptoms during life, being also entirely similar, afford no assistance in the inquiry.

In a paper on aneurism of the cerebral vessels, GULL first alludes to the causes which led to the erroneous opinion that the disease was extremely rare. His following observations are partly statistical, partly descriptive, and do not admit of abbreviation, but the following numbers, relating to the seat of intra-cranial aneurism, are important. Vertebral arteries and their branches: vertebrals, 4; basilar, 20; small vessel in substance of pons; posterior cerebral, 3. Carotid and branches: internal carotids by sella turcica, 8; middle cerebral, 15; anterior cerebral, 6; anterior communicating, 1; posterior ditto, 4. Whole total, 62. After a synopsis of symptoms observed in twelve cases of basilar aneurism, the author proceeds: "The symptoms of aneurism of the basilar artery, though not diagnostic of the nature of the particular lesion, form, upon the whole, a natural group indicating its presence and its seat. It is not so, however, where the middle cerebral artery is affected, for it will be seen (*vide* Tables) that in such cases there was often no clinical history previous to the rupture of the sac; or if any, none to indicate unequivocally the presence of organic lesion. Exceptions to this there are when the sac has become large, so as to compress the central parts about the base, as in Case iv. Where the arteries of the circle of Willis are the seat of the aneurism, there may also be the same vagueness in the indications of organic disease; but in two cases, where the posterior communicating artery was affected, ptosis from compression of the third nerve was an early symptom. As with other tumours, so with intra-cranial aneurism; headache, though difficult to estimate strictly, is one of the most important symptoms. The one character of it which should most arrest our attention is its constant recurrence, and its after distressing severity, with concomitant disturbance of the cerebral functions. All care, however, will often fail to enable us to form a correct opinion, even should we, as some have suggested, auscultate the cranium for an aneurismal murmur! Intra-cranial aneurism often serves to illustrate to us how much the whole nutrition of the brain may be affected by the operation of a strictly local lesion. It may lead to subarachnoid and ventricular effusion, and produce symptoms of insanity and epilepsy." The morbid dis-

turbance may be very various, according to the quality of the normal action which is deranged by the special cause.

SCHUBERG gives an historical sketch and an account of the pathology and symptoms of hæmatomata of the dura mater. He assents to the view of Heschl, Virchow, and Cruveilhier, as to the affection being the result of a fibrinous inflammation, attended with a copious development of new vessels, from which the hæmorrhage proceeds. The disease usually is of months' duration, and always ends fatally. It is most frequent in advanced life, and in the male sex. The symptoms at the commencement are, diminution of intelligence and memory, with giddiness and head-pain, sometimes with intervals of remission. At a later period the power of speech is impaired, the hands and legs are enfeebled; there is mental dulness and stupidity, combined with an excessive appetite. Paralysis may occur on one or both sides, and hemiplegia may exist, with effusion of blood on both hemispheres. Facial palsy is crucial to that of the paralysed side. The closing symptoms are gradual and sudden loss of consciousness, with or without convulsions.

Two cases of facial paralysis are recorded by ULRICH. In one the cause of the paralysis appeared to be a tumour in the right anterior cerebral lobe. In the second there was found an interstitial tumour of the right half of the pons and medullà oblongata.

POSNER records an interesting case of articular rheumatism, in which the disorder twice quitted the joints and attacked the brain, as evidenced by violent delirium, pain in the head, and slow pulse. After the cessation of the second cerebral attack, the articular affection subsided in about a fortnight.

A paper on sciatica is published by SCHRAMM, containing the results of five years' experience. He treated 34 acute and 7 chronic cases. The age of the patients was usually from 40 to 60. The disease was most frequent in the early summer and late autumn. The pain was intermittent in 12, remittent in 18 cases; in the latter, fever was usually present; in many cases all the three stages of an ague paroxysms. The treatment was by quinine and arsenic.

Salinum palustre is found efficacious by HERPIN in epilepsy. He gives one to four ounces of the powder in the course of a week, and continues this several months.

TÜRCK states that in four cases, carefully examined by him, in which anæsthesia continued along with motor paralysis for a length of time, or after the latter had disappeared, the following was the

situation of the morbid alterations, viz., the tract superior and external to the optic thalamus, for the space of eight lines to two inches.

LANDRY describes a form of paralysis, which he names "acute ascending." It begins at the extremities, advances slowly towards the centre, then quickly invades the muscles which are important to life, and sometimes kills quite suddenly. The bladder and the rectum are usually spared, and the mental faculties are unaffected. Sensation and motion may both be alike impaired, but usually the latter is most so. The muscular power becomes gradually lost, and the limbs become flaccid, without any twitchings, contractions, convulsions, or reflex movements. The palsy affects the muscles in the following order: those of the feet and toes, the posterior surface of the thigh and the pelvis, of the anterior and inner part of the thigh, then those of the fingers, hands, shoulders, and elbows, next the trunk, the respiratory muscles, the tongue, the throat, œsophagus. The course of the disease is always rapid—from eight to fourteen days down to some hours. If improvement takes place, the phenomena disappear in the inverse order of their appearance. In the only two autopsies that have been made, nothing was found to explain the symptoms. Nothing positive has yet been ascertained respecting its ætiology, except perhaps that it generally seems to follow on some debilitating disorder.

Case of paralysis of the left facial and sixth nerve, in consequence of tuberculous meningitis, recorded by TEISSIER.

A case of peculiar alteration of the gait in walking, recorded by HILLAIRET. The patient in walking took ten regular steps, then stood still, raised the right foot somewhat above the ground, raised and lowered himself several times upon the left, then stamped two or three times with the right foot, and went on. He had previously suffered from apoplectic seizures, inducing paralysis of the right side, which in great measure had passed away.

LUYS records the alterations found in the nerves in three cases of contractions of the limbs. These consisted chiefly in fatty degeneration of the nerves of the paralysed and wasted muscles.

HILLAIRET and LUYs record a case of paraplegia from amyloid degeneration of the spinal cord.

COLDSTREAM recommends the use of iodide of potassium in inflammatory diseases of the brain in children. "In all cases in which, from the course of symptoms, I have reason to believe that the cen-

tral organs of the nervous system, or their envelopes, are in any degree affected with strumous inflammation (tubercular cerebritis, or meningitis) or its consequences, after moderate purging, and perhaps application of leeches to the head, I am in the habit of prescribing the iodide, in doses of from half a grain to three grains, every three or four hours, generally dissolved in some carminative water, and continuing it in doses varied according to the symptoms for many days, or even until convalescence is fully established; and I am quite satisfied that under this treatment, with the occasional addition of blisters to the shaven scalp, I have seen far more prompt and decided effect produced upon the disease than I used to see under the old treatment." In the case, however, of robust and full-blooded children, he has no doubt of the superior efficacy of the mercurial treatment, combined with antimonials and salines.

RUSSELL REYNOLDS reports a case of paralysis agitans removed by the continuous galvanic current from an 120-link Pulvermacher's chain. The disorder affected the whole of the right upper limb, which in the situation of the biceps was four degrees hotter than the other. The sensibility was unaffected. After five applications, of an hour each, the spontaneous jactitation completely ceased. For another month the current was passed every other day, the arm gained strength, and only some slight tremor was present when any weight was raised in the hand towards the mouth. No medicine was given till after this date. The disorder came on with vertigo and general disturbance about fifteen days before treatment was commenced.

DURRANT records four cases of partial paralysis, affecting the face (2), tongue, and three fingers of left hand. Ammonia was prescribed in all the cases, with one sixteenth of a grain of bichloride of mercury, at night, in the first three. He is inclined to regard the paralysis as dependent upon some exudative deposit or thickening in the course of the nerve.

In the treatment of chorea, ARAN considers that arsenic should be given at first in doses of one thirtieth to one twentieth of a grain to children seven years old, and that the amount should be rapidly increased, so as to reach in three or four days one sixth to a quarter of a grain. "This rapid mode of administration is better than the long continuance of small doses, because the economy habituates itself to the latter, and the therapeutical effects may be lost; and this proceeding has the additional disadvantage of leading more easily to the saturation of the economy, and consequently to intolerance."

MARCÈ adopts the following conclusions with respect to the state of the mental powers in chorea. “(1.) The moral and intellectual functions are very commonly affected in choreic patients; at least two thirds show some affection of the kind. The immunity enjoyed by the remaining third cannot be explained either by the age or the sex of the subjects, by the acuteness or chronicity of the disorder, nor by the extent or intensity of the convulsions. (2.) Four morbid elements, which are sometimes isolated, but most frequently associated, should be studied together in the mental condition of chorea patients. —(a) Derangements of the moral sensibility, consisting in a notable change of character, which becomes irritable and capricious, and may be unusually animated, but is more frequently depressed. (b) Derangements of intellect, characterised by a loss of memory, by too great a flow of ideas, and by the impossibility of fixing the attention. (c) Hallucinations which occur in the state intermediate between sleeping and waking,” commonly limited to the sense of sight. “(d) Chorea may, from its commencement, be complicated with maniacal delirium; this frequently terminates in death, or if recovery takes place, intellectual disturbance remains.”

CHAPIN “argues that the defective nutrition of the brain resulting from the syphilitic diathesis” may produce insanity. He bases his opinion upon a series of cases, partly culled from his own experience, partly from that of other writers, in which the subsidence of the mental alienation coincided with the effect of the treatment directed against syphilitic manifestations.

DUCHENNE relates the following illustrative case of the disorder which he has termed “*ataxie locomotrice progressive*.” A painter, æt. 28, has double but incomplete paralysis of the sixth pair of nerves; characteristic boring and flying pains, recurring especially at night; integrity of the muscular force, contrasting with the complete loss of co-ordination of the lower limbs, which rendered walking impossible, even when assisted by the eyesight; formication and numbness of the last two fingers of each hand of only a few months’ date; sensibility in the feet and legs much diminished; electro-muscular contractility intact. The disease had commenced two years before. Its apparent cause was syphilitic disorder. An autopsy was made with great care after death had occurred from an intercurrent affection, but no appreciable lesion could be discovered in the brain and spinal cord.

A case of softening of the spinal cord in its lower half, with apo-

plectic effusion, is recorded by DURIAN. The symptoms came on suddenly, as severe pain in the loins, extending like a girdle round the abdomen, not increased by pressure on the vertebral column, and complete paraplegia with unimpaired sensation. Death occurred on the eighteenth day. Post-mortem showed no other essential disease than is above stated.

HAMON records two cases of chorea treated by numerous cauterizing applications of concentrated nitric acid to the dorsal and lumbar spinal regions. From sixty to eighty slight ulcers were made, which healed without apparent cicatrices. Other means had been tried in vain. Improvement speedily ensued, and after two repetitions of the proceeding the first case (a severe one) was cured in three weeks.

HENOCH directs attention to the occurrence of pain in the head, depending on disorder of the female sexual organs. The pain may be frontal, vertical, occipital, or unilateral. The uterus is most frequently the organ in fault. He mentions two cases, in one of which a head pain had continued for four and in the other six years. In both a cure was effected by treatment directed to the healing of erosions of the uterus. He remarks on the efficacy of emetics in headaches, but contests the view that they act as mere evacuants.

After relating a case of cerebral rheumatism, TROUSSEAU subjoins the following general remarks. There are three forms of cerebral rheumatism. The first and most dangerous is the so-called *apoplectic* (in the sense understood by older writers), characterised by collapse and coma alone, without paralytic phenomena. Trousseau, however, himself met with a case in which, after pains in the back and paraplegia, there came on suddenly hemiplegia and amaurosis of the opposite side, while the dorsal pain disappeared. These latter symptoms soon gave way, and recovery ensued. A second form is the meningeal, as in a case related by Gosset, in which, after delirium and violent excitement, coma came on, and the autopsy showed acute meningitis. The third form is the delirious; it is the most important, but the most difficult to diagnose, because it is easily confounded with similar states. Thus, such cases are to be excluded in which delirium ensues in the course of acute rheumatism, because in many individuals all notable febrile movement is attended with delirium. The same is true of delirium occurring in topers. On the other hand, many cases are to be included of insanity or mania which show themselves in the course of acute rheumatism. Even

the possibility of a primary rheumatic mania cannot be denied, since there is certainly a primary rheumatic endocarditis. Moreover, rheumatic chorea, so common in children, is closely related to cerebral rheumatism. It is not unfrequently complicated with delirium; and in a case reported by Mesnet, together with rheumatic delirium and insanity, persistent clonic convulsions were present.

A case of tetanus, not apparently traumatic, in which the patient became extremely emaciated and exhausted, but recovered under the pretty free use of stimulants, is recorded in the 'British Medical Journal,' August 20th, 1859.

A case of rotatory convulsion in a child, aged four and a half years, suffering under strumous hydrocephalus, is recorded by MINCHIN. In the surface of the left cerebellar hemisphere was a firm, oval tubercle, of the size of an almond, adherent to the dura mater, and at the corresponding point on the right there was a rough, tubercular elevation of the dura mater. The day before death the body rolled longitudinally from left to right for several minutes at once four times in the course of the day.

SCHRAMM, from 1854 to 1858, observed 195 cases of neuralgia of the fifth pair, of the particulars of which he gives a summary. His field of observation was Bodenwöhr, in the Palatinate, where malarious disease is endemic. The affection sometimes supervened instantly on the cessation of some other disorder. Quinine and carbonate of iron, given in small doses, quickly succeeding each other, were successful in the majority of cases. In obstinate cases, arsenic was invaluable.

In OGLE's case the symptoms were the result of compression of certain lateral parts of the brain, from an intra-cranial aneurism. Ogle believes that the aneurism produced irritation of the crus cerebelli, from whence the morbid inhibitory action was transmitted to certain motor fibres on the other side of the brain, which were consequently prevented from discharging their function. The term "induced cerebral" he prefers to those employed by Brown-Séquard, who first proposed this hypothesis to account for cases of paralysis occurring on the same side as the lesion. The aneurism in the case in question was of the size of a small nutmeg, proceeded from the anterior cerebellar artery, and rested immediately upon the inferior surface of the left middle crus cerebelli. The fifth and seventh nerves were pressed upon by the aneurism, the latter being especially implicated and stretched.

AZAM has repeated Mr. Braid's hypnological experiments, and finds that catalepsy and anæsthesia can be obtained in the way he indicates. M. Broca and M. Follin have used this method successfully in one case, and in some others it has been more or less effectual. Mr. Braid's original paper is in the 'Edinburgh Monthly Journal,' July, 1853.

The principle of the method is to cause the patient to gaze intently for some time on a bright object.

A detailed account of hæmorrhage in the cerebellum is given by HILLAIRET, which we can do little more than mark for reference; it is very full and complete. In one form its course is gradual, in the others so rapid as to kill instantaneously. Vomiting is a special symptom, and so is loss of power in the limbs, not amounting to actual paralysis. Hemiplegic paralysis occurs in a third only of the cases; it is always crossed. Crossed facial paralysis and deviation of the tongue are exceptional. Speech is generally drawly and slow. Sensibility is unaffected except towards the fatal close, and the same is the case with the special senses. Convulsions do not occur if the cerebellar lesion is uncomplicated.

PSYCHIATRIK.

Austen.—A Practical Account of General Paralysis, its mental and physical symptoms, statistics, causes, seat, and treatment. pp. 225.

Robinson.—On the Prevention and Treatment of Mental Disorders. pp. 228.

Schlager.—Beobachtungen über die Hyperphrenie. [Observations on Maniacal Excitement.] Schmidt's Jahrb., vol. 103, p. 346.

——— Psychiatrische Mittheilungen aus den Russischen Gouvernements Hospitalern. [Psychiatric Communications from the Russian Government Hospitals.] Ib., p. 347.

Girolami.—Zur Irrenstatistik des Kirchenstaates. [Statistics of Insanity in the States of the Church.] Ib., p. 348.

Brugnoni.—Bericht über das Irrenhaus zu Astino, für das J. 1857. [Report of the Asylum for the Insane at Astino, for 1857.] Ib., p. 348.

Hoffmann.—Beobachtungen und Erfahrungen über Seelenstörung und Epilepsie in der Irrenanstalt zu Frankfurt a. M. [Observations and Experience relating to Insanity and Epilepsy in the Frankfort Asylum.] Ib., vol. 104, pp. 130

—133.

ROBINSON'S work is divided into three parts. The first comprises the general introduction, and the physiology and pathology of the nervous system; the second treats of the forms and the causes,

physical and moral, of mental disorders; and the third is devoted to their treatment, medical and general. After quoting the statistical statements of various authors as to the greater influence of moral or physical causes in producing insanity, the author affirms that his "own experience is wholly in favour of the idea that in the great majority of cases insanity is directly or indirectly the effect of sources of mental disturbance originating in the will or feelings of the persons affected, and which may therefore properly be considered as moral in their nature." As physical causes of insanity, he ranks hereditary predisposition, temperament, scrofula, fever, and the metastasis of gout, rheumatism, erysipelas, &c. On the subject of the nervous temperament he quotes some admirable remarks of Dr. Trotter, Dr. Gillies, and Sir J. Sinclair. He approves highly of the practice of the Greeks and Romans in enforcing the cultivation of athletic exercises. Great stress is laid on the importance of training the mind to habits of self-control, of the education of the moral affections, and the avoidance of all kinds of vice, dissipation, and excess. Recognising the great influence of intemperance as a cause of insanity, especially among the lower classes, he looks for its removal rather to the improvement of their homes and of their moral education than to any pledge or promise given at a moment of excitement or remorse. Under the head of treatment, he speaks very favorably of the effect of oil of turpentine in purgative doses (3ss to ʒj) as a means of cutting short attacks of acute mania. A solution (saturated) of phosphorus in chloroform he states is an excellent stimulant (dose, mʒ—x). With regard to general treatment, he entirely approves of Dr. Bucknill's caution, that "between amusements and occupations a due proportion ought to be observed," and cites a case from his own experience to show how a suicidal purpose may be cherished and contrived at the very time that a patient is joining in dances and festivities. Finally, he recommends various means for checking the progress of insanity in this country.

SCHLAGER states that in maniacal hyperphrenia constant and palpable anatomical changes are not always found, though he does not consider this to disprove the dependence of mental disorders on cerebral morbid alteration. In fifteen cases of the above kind the disease ran its course during the first stage with the phenomena of cerebral hyperæmia, and there were found in three (after previous epileptic attacks and furious delirium) serous infiltration,

and opacity of the internal membranes, with ecchymosis and hyperæmia of the brain and serous effusion in the ventricles. In the remainder there was serous infiltration of the brain and its membranes, and in one case of pulmonary and intestinal tuberculosis there were meningeal tubercles. In the cases of periodic mania, which perished in the third stage, the author mostly observed opacities and serous infiltrations, adhesions of the inner membranes, Pacchionian granulations, more poverty of blood and softness of the brain, except where, after epileptic attacks, a greater degree of firmness of the cerebral substance was observable.

In the asylums and hospitals for the insane in Russia, there were treated in the year 1856, on the whole, 3616 patients, of whom 2087 (57·4 per cent.) were sent out cured or improved, 388 (10·7 per cent.) died, and 1150 remained under care. The form of the insanity in one sixth was drunkard's delirium, in four sixths mania or monomania, and in one sixth melancholy or imbecility. Alcoholic intoxication was by far the most common cause, so that in Poltowa, out of 108 patients, 95 (52 males out of 55) owed their disease to this cause. Among these patients there prevailed a special tendency to imbecility, attended with phenomena of motor paralysis and hallucinations of vision.

From a paper by GIROLAMI, on the statistics of insanity in the States of the Church, it appears that there exists about one lunatic to every 2364 inhabitants. In regard to treatment it is mentioned, that a case of intermittent mania, which had been in no way benefited by a seton in the neck, was completely cured by valerianate of atropine. In this form there was less apparent advantage from the use of valerian and oxide of zinc. Valerianate of atropine effected also considerable improvement in two cases of epileptic mania. In two cases of lypemania stupida, sulphate of strychnine was of extraordinary benefit; and in a third, Ol. Morrhuæ, with cold affusion and bitter tonics. In cases of pellagra not yet arrived at the third stage, not only the mental disorder was many times removed, but also the dyscrasia to a very great extent, by the use of vegetable juices, especially those of vine branches and cruciferae, and also by the administration of chloride of iron. The chronic diarrhœa was arrested by tannin and opium, and the sleeplessness and unrest combated by hyoscyamus and morphia, with the result of curing even the disease itself in some cases of lypemania, especially the hypochondriacal.

In a report from the asylum for the insane at Astino, drawn up by LE BRUGNONI, for the year 1857, it is stated that the number of admissions was 120 (74 males, 46 females), the whole number under treatment was 236, the majority being cases of mania, melancholia, and chronic dementia. Of the whole number, 62 were improved, while 26 (17 males, 9 females) died. Most admissions took place in the summer months, the fewest in the autumn. The greatest mortality was in the spring, the least in the autumn. In 125 cases, pellagra appeared as the predisposing cause; in 135, hereditary influence. Of the fatal cases, 17 died of marasmus in consequence of slow (creeping) cerebro-meningitis; of tuberculosis, 1; of cerebral apoplexy, 2; of pulmonary phthisis, 1; of intestinal ulceration, 2; of sphacelus of the brain, 1; of inflammation of the brain, 1; of inanition, 1. At the autopsy of these 26, there was found thickening of the dura mater and adhesion to the skull-cap in 14; serous and sero-plastic exudation between the meninges and the brain in 17; extraordinary vascularity of the pia mater in 21; inflammatory injection of the brain-substance in 12; induration of the cerebral medulla in 9; softening of the gray substance in 9; pappy, pale-red softening of the whole cerebral mass in 1.

HOFFMANN gives a report of his experience at the Frankfort asylum for the insane, during a period of six and a half years. In this time there were in the asylum 336 cases (53 of them relapses), including 45 epileptics with 4 relapses; of these 283 individuals 139 were males, 144 females. The new cases amounted to 180 (84 males, 96 females); and of these there suffered from melancholia, 50 (21 males, 29 females); from mania, 65 (29 males, 36 females); from partial insanity, 23 (8 males, 15 females); from mental confusion (*verwirrtheit*), 9, (7 males, 2 females); from imbecility, 33 (19 males, 14 females). While, on an average, the admissions of epileptics remained the same, the increase in the number of insane was so surprising that the number of admissions was almost doubled, the relative proportion of males and females remaining unaltered. Of the whole number, there were 63 recoveries (23 males, 40 females), and 26 improved (9 males, 17 females); comprising 34 melancholics, 36 maniacs, 7 cases of partial insanity, 7 of mental confusion, 4 imbeciles. There were 22 not cured (18 males, 4 females); comprising 5 melancholics, 10 maniacs, 4 cases of partial insanity, 4 of mental confusion, 1 imbecile. There

were 57 deaths (32 males, 25 females); comprising 5 melancholics, 16 maniacs, 2 cases of partial insanity, 34 imbeciles. The author then gives short descriptions of the various forms of insanity as he classifies them, and concludes with an account of 73 autopsies. Of these he says that hypertrophy of the left ventricle of the heart and non-symmetry of the brain were surprisingly frequent, the latter being especially evident in the posterior horns of the lateral ventricles. Those who died in the first stages presented far fewer anatomical changes in the brain than the cases of the secondary forms, especially the imbecile. In epileptic cases in general there were found no prominent and special post-mortem appearances, except some local hyperæmias, and the author holds epilepsy to be much less connected with material change than mental disorder.

MUSCULAR SYSTEM.

Rodet.—*Atrophia muscularis progressiva syphilit Ursprungs.* [Progressive Muscular Atrophy of Syphilitic Origin.] Schmidt's Jahrb., 1859, vol. 102, p. 185.

Friedberg.—The Pathology and Therapeutics of Muscular Paralysis. (Review.) Brit. and For. Med.-Chir. Rev., Jan., 1859, p. 82.

A case of progressive muscular atrophy, of syphilitic origin, is recorded by **RODET**, of Lyons. A male, æt. 56, was treated with bichloride of mercury for an indurated chancre. During this time he got head-pain, sleeplessness, and dull pains in the thighs, with extraordinary debility, especially of the right side, the right arm being most affected. Omission of the mercury, and afterwards its resumption, made no difference in the disorder, which continued to increase, and induced atrophy of the muscles of the ball of the thumb, of the right, fore, and upper arm, and of the whole right lower extremity. In all the atrophied muscles fibrillary contractions occurred. Under a course of Potass. Iod., prolonged for nine months, all the symptoms, both of syphilis and of atrophy, vanished, and the patient regained very nearly his former weight. An analogous case is recorded by **NIEPER**, in the 'Union Médicale' of April 21st, 1853, in which atrophy had been in progress for three years. When under the baths of Allevard, a syphilitic eruption appeared, which was treated with Pot. Iod., whereupon atrophy and eruption both got well.

FRIEDBERG considers that the derangement of nutrition of the

muscles, inducing paralysis, may arise—(1.) From propagation of a similar morbid process from adjoining organs (*myopathia propagata*). (2.) From mechanical injury (*myopathia traumatica*). (3.) From sudden change of temperature (*myopathia rheumatica*). (4.) From diseased conditions of the blood (*myopathia dyscrasica*). (5.) From diminished supply of blood and diminished exercise (*myopathia marasmodes*). (6.) From causes which are beyond our reach (*myopathia simplex*)! Instances of *myopathia propagata* are paralysis of the abdominal muscles in peritonitis, of the intercostals in pleuritis, of the heart's fibre in pericarditis. Excessive fatigue or a sudden strain may, in *myopathia traumatica*, so alter the nutrition of the muscles that they subsequently degenerate. *Myopathia rheumatica* Friedberg defines as that variety of the affection in which degeneration of the muscles results from exposure to sudden changes of temperature. It may be acute or chronic, and lead to universal degenerative atrophy and palsy of the muscles. He seems to consider that it affects invariably the interstitial areolar tissue of the muscles. *Myopathia dyscrasica* is noticed by Friedberg as a sequel of cholera, dysentery, typhus, gastric fever, and the exanthemata. *Myopathia marasmodes* is not necessarily caused by deficient exercise of the muscles, but occurs when this element of disease exists, and is accompanied by other morbid tendencies in the muscle. *Myopathia simplex* may affect single muscles or numerous sets. It has usually been regarded as resulting from paralytic affections of individual nerves. "The chief remedy for the protracted nutritive disturbance of the muscle consists in stimulating it methodically to contract." This is best effected by electricity and suitable gymnastic exercises.

CIRCULATORY SYSTEM.

Ogle and Meadows.—On Clubbing of the Finger-ends as a Sign of Thoracic Disease. *Med. Times and Gaz.*, March 19th and 26th, 1859.

Markham.—On Rupture of the Heart. *Med. Times and Gaz.*, April 9th, 1859.

Durrant.—On Functional Affections of the Heart. *Brit. Med. Jour.*, Jan. 1st, 1859.

Gairdner.—On Pericarditis. *Edin. Med. Jour.*, April, 1859, p. 904.

Sappey.—On the Anatomy of Cirrhosis. *Ib.*, p. 938.

Turner.—Two Cases of Aneurism of the descending Thoracic Aorta, producing obstruction of the Thoracic Duct. *Ib.*, May, 1859, p. 1003.

- Reid.**—Case of Chlorosis—Anæmic murmurs at apex of heart. Dublin Hosp. Gaz., June 1st, 1859.
- Beau.**—Normal Hypertrophy of the Heart during Pregnancy. Edin. Med. Jour., June, 1859, p. 1138.
- Chauveau.**—Ueber die Geräusche in der Gefäßen und ihre semiotische Bedeutung. [On Murmurs in the Vessels, and their semiotic import.] Schmidt's Jahrb., vol. 102, p. 228.
- Kolisko.**—Ueber das continuirliche Halsgeräusch. [On the Continuous Murmur in the Neck.] Ib., p. 233.
- Kennedy.**—Cursory Remarks on the Diagnosis of Fatty Heart. Edin. Med. Jour., July, 1859, p. 13.
- Talley.**—Ulceration of the Aorta. (Case.) Brit. and For. Med.-Chir. Rev., Jan., 1859, p. 259.
- Da Costa.**—On the occurrence of a Blowing-Sound in the Pulmonary Artery, associated with affections of the Lung; on the Sounds of the Artery in Health, and on the effect on them and on the Heart of the act of Inspiration. American Journ. of the Medical Sciences, Jan., 1859, p. 119.
- Humphry.**—The Formation of Clots in the Venous System during Life. Brit. Med. Journ., July 23d and 30th, Aug. 6th and 13th, 1859.
- Moorhead.**—Case of Angina Pectoris, with remarks. Lancet, July 30th, 1859.
- Willebrand.**—On the Secale Cornutum in Disturbance of the Accommodation-power of the Eyes. Edin. Med. Jour., Aug., 1859, p. 175.
- Vanzetti.**—On the Treatment of Inflammation by Digital Compression. Brit. and For. Med.-Chir. Rev., July, 1859, p. 248.
- Markham.**—The Pathology, Diagnosis, and Treatment of Cardiac Diseases.—Pericarditis. Brit. Med. Jour., Aug. 20th, Sept. 10th, Oct. 1st and 15th, Nov. 5th, Dec. 10th, 1859.
- Fox.**—On Cyanosis, and the nature and value of temporary Basic Systolic Murmur. Med. Times and Gaz., Aug. 27th, Sept. 10th, 1859.
- Duchek.**—Zur Aetiologie der Perikarditis. [The Ætiology of Pericarditis.] Schmidt's Jahrb., vol. 103, p. 313, 1859.
- Cregeen.**—On a Case of Rupture of the Right Auricle of the Heart. Lancet, Oct. 1st, 1859.
- Reid.**—Cases of Aneurism, with Remarks. Dub. Hosp. Gaz., Oct. 15th, 1859.
- Robinson.**—On some Obscure Cases in Medicine. (Aneurism.) Brit. Med. Jour., Oct. 8th, 1859.
- Gubler.**—On the Sudden Increase of the White Blood-corpuscles during the last Stage of Cachectic Diseases. Brit. and For. Med.-Chir. Rev., Oct., 1859, p. 543.
- Wallmann.**—On the Foramen Ovale of the Adult. Ib., p. 542.
- Mushet.**—A Brief Report of the Pathology of Angina Pectoris, with Cases. Brit. Med. Jour., Oct. 15th, 1859.
- Barlow.**—On some Points in the Diagnosis and Treatment of Heart Disease. Guy's Hosp. Reports, vol. v, 1859, pp. 342—347.
- Barlow.**—Cases illustrative of the Ætiology of Enlargement of the Heart. Ib., pp. 348—366.
- Feigneaux und Buys.**—Zerreissung der Kranzschlagader des Herzens. [Laceration of the Coronary Arteries of the Heart.] Fall von Herzruptur. [Case of Rupture of the Heart.] Zerreissung der Sehnenfadens einer der Columnæ Carneæ der Mitralklappe. [Rupture of the Cordæ tendineæ of the Mitral Valve.] Schmidt's Jahrb., 1859, vol. 104, pp. 168, 169.

Worms.—Ueber Entzündung des Ductus Thorac. [On Inflammation of the Thoracic Duct.] *Ib.*, p. 169.

Flogel.—Pleuritisches u. perikardiales Exsudat, Eintritt der Quergrimmndarms in die Brusthöhle, Thrombose beider Schenkelarterien, u. eines Theiles der gemeinschaftlichen Hüftpulsadern. [Pleuritic and Pericardial Exudation, the Transverse Colon intruded into the Thorax, Thrombosis of both Crural, and of a part of the common Iliac, Arteries.] *Ib.*, p. 171.

Whalley.—On a Case of Purpura, readily yielding to Gallic Acid and Mercury. *Lancet*, Dec. 10th, 1859.

Cockle.—On certain Points of Physical Diagnosis in Mitral-Valve Disease. *Ib.*, Dec. 17th, 1859.

Gairdner.—Case of Aneurism of the Thoracic Aorta, which opened into the Trachea and Left Bronchus; Hæmoptysis four years before Death. With Remarks on the Rupture of Aneurisms. *Med.-Chir. Transact.*, vol. xlii, 1859, p. 189.

Clubbing of the finger-ends as a symptom of thoracic disease.—

OGLE and MEADOWS each relate a case bearing on this subject. As a consequence of aneurismal tumour pressing on one side, the fingers of the corresponding hand presented the appearance in question.

MARKHAM contributes an analysis of twelve cases of rupture of the heart recorded in the first seven volumes of the 'Transactions of the Pathological Society.' In eight, symptoms of disordered circulation or respiration, or both, preceded the rupture. Two only enjoyed good health. Two had suffered previous attacks of hemiplegia, and in these two intracranial disease was found after death. Fatty degeneration of the heart, in one instance limited to the seat of rupture, was in all cases the cause of the occurrence. In nearly all, if not in all, the cases, the coronary arteries were diseased, and the circulation especially obstructed in that particular branch which led to the seat of rupture. Markham draws attention to the probability of the finer cerebral arteries being diseased in such cases, and considers that the symptoms may in part proceed from impairment of the actions of the brain, in consequence of such disease.

A paper is published by GAIRDNER on pericarditis. He does not treat the subject in a systematic manner, but offers his experience on various points connected with the diagnosis, prognosis, and treatment of the disease. With regard to the first, he observes—(1.) That though friction-sound is perhaps always present at some period in the course of pericarditis, yet it may be so fugitive and transitory that we cannot at all reckon upon finding it. The amount of effused fluid will not always account for the inconstancy

of friction; it may be moderate, yet friction be absent, and very copious, and yet friction exist. (2.) That the presence of friction-sound is not necessarily a proof of the existence of pericarditis; a loose, floating piece of organized fibrous tissue, or roughened surfaces, may produce the sound. Both milk-patches and very close adhesions Gairdner believes may occasion quasi-friction-sound. (3.) That the distinction of exo- from endocardial murmurs is by no means always easy; the former may be confounded with mitral-valve murmur, or regurgitant tricuspid, or arterial pulmonic murmur, or with aneurismal.

SAPPEY affirms that in cirrhosis of the liver a collateral venous circulation is formed by the enlargement of small veins in the suspensory ligament, which communicate with veins in the anterior abdominal parietes, and form a channel through which the blood passes downwards to the crural vein and so on to the heart. By this means the occurrence of ascites is obviated.

TURNER publishes two cases of aneurism of the thoracic aorta producing obstruction of the thoracic duct. In neither was there any emaciation, collateral channels for the lymph having probably been developed.

A case of aneurism of the hepatic artery is recorded by WALLMANN, of Vienna. The tumour was as large as a small child's head; it had obliterated the cystic duct, but not apparently the hepatic nor the common duct.

REID records a case of chlorosis, in which a murmur was heard at the apex of the heart as well as over the pulmonary artery. As the patient improved, the latter murmur became much less distinct, and the one at the apex was not constant.

BEAU has recently tested the statement of M. Larcher as to the existence of hypertrophy of the left ventricle of the heart during pregnancy. Observations made upon a hundred cases of women, between the ages of twenty and thirty, dying during childbirth, have satisfied him that M. Larcher's views are entirely correct.

CHAUVEAU publishes the following researches respecting murmurs in the vessels and their semiotic significance. He satisfied himself first of all that, in the normal condition, no murmur is produced by the circulating blood. He then shows by experiment—(I.) That murmurs stand in no direct connection with the quantity or quality of the mass of the blood. (II.) That unevennesses of the inner surface, if they do not modify the form of the vascular canal, pro-

duce no murmur. (III.) That dilatations in the course of a vessel give rise to a murmur. (IV.) That contractions in the course of a vessel may also produce a murmur, but not from the circumstance of the blood passing from a wider channel into a narrower one, or through a narrowed space, but from its passing into the wider part just beyond the contraction. The result is the same whether the above experiments are performed on veins or arteries. (V.) Absolute or relative dilatation alone does not suffice to produce a murmur; for this it is further requisite that there should be—(1) a considerable excess in the original diameter of the vessel above that of the constriction; (2) a certain strength of the blood-current. An experiment with the carotid artery of a horse shows that, with a degree of contraction sufficient to produce a murmur, none will be heard if the heart's impulse, from any cause, is too weak, or, on the other hand, with a contraction inadequate to generate *per se* a murmur, one may be produced if the heart's action is increased as by a dose of strychnine. (VI.) If the communication between the contraction and dilatation is proportionally too small, the murmur is thereby weakened in its intensity; this decreases with the volume of the blood-wave, and is considerable when the blood passes with a great wave into the wider part of the tube. Thus if an artificial aneurism is formed on the course of an artery, as by inserting an india-rubber ball provided with an in-and-out-leading tube, the murmur is far less distinct when the entrance into the dilatation is constricted.

KOLISKO assigns various reasons for his belief that the venous murmur proceeds from the vibrations of the cervical fascia, which are excited by the changes in shape of the artery, and have the magnitude of their individual excursions determined by traction from the thoracic cavity, and the degree of tension of the sheath of the vessels.

KENNEDY contributes a paper on the diagnosis of fatty heart, a summary of which is contained in the following propositions, with which the paper concludes. (1.) That fatty change in the heart is rarely attended with valvular disease. (2.) That, with our present knowledge, the proportion seems to be as six to one. (3.) That when valvular disease exists with fatty heart, it is commonly the aortic valves that are affected, and these are thickened and fatty. (4.) That this state of the valves rarely allows of regurgitation. (5.) That it may give rise to a soft souffle with the first sound of the

heart, leaving the second healthy, as observed by Dr. Stokes. (6.) That there are grounds for supposing that this fatty state of the aortic valves may go on for years without affecting the duration of life. (7.) That visible pulsation of the arteries often attends this state, but as there is no regurgitation, it so differs from the disease described by Dr. Corrigan. (8.) That enlargement occurs in more than half the cases of fatty heart. (9.) That in keeping with this, a large diffluent pulse is the most common kind to meet in fatty heart. (10.) That either a very slow, unequal, or rapid pulse is only met in exceptional cases. (11.) That the French way of exclusion is, in the absence of valvular disease, the chief way of arriving at the diagnosis of fatty heart. (12.) That there is often a marked disproportion between the complaints of the patient of dyspnoea and the physical efforts made to relieve it. (13.) That this is possibly most marked when the right heart is the farthest advanced in disease.

TALLEY records a case of ulceration of the aorta near its origin, which caused death suddenly by opening into the pericardium. The orifice was as large as the end of the middle finger, its edges were indurated, and the lining membrane, for an inch and a half to the origin of the vessel, of a dark-red colour, and coated with lymph deposits. There was no aneurismal dilatation of the aorta. The patient was in the third stage of phthisis.

DA COSTA has recently studied the blowing sound in the pulmonary artery, which was originally pointed out as a symptom occurring in tuberculous patients by Dr. Latham. After giving the particulars of eight cases in which this physical sign occurred, he proceeds to describe it as "a murmur attending the impulse of the heart, almost always soft and low-pitched, although occasionally harsher, of higher pitch, and simulating a sibilant r  le. Its situation is in the second intercostal space on the left side, not an inch from the edge of the sternum. It may be audible higher up, or again opposite the third rib, or the sternum. The space it occupies is usually very limited, and can be accurately circumscribed with the stethoscope. It is not heard during a full inspiration; but very distinctly after inspiration, or with expiration. It takes the place of the first sound at the spot it is heard, but is followed by a distinct second sound. When the patient is breathing quickly, and the heart's action excited, it is best distinguished. It is not always of equal distinctness, or of equal pitch; but it is not tran-

sitory, as it may be observed extending over a long space of time. The sounds of the heart are not influenced by it. They are heard with the usual clearness at the apex, immediately above the ensiform cartilage; at the third rib, or second intercostal space, on the right side; at midsternum; and even at the third costal cartilage and edge of sternum, on the left side.

In a paper on the formation of clots in the venous system during life, by HUMPHRY, after detail of some cases, and general facts observed, the author describes the process of formation of the clot as follows: "It appears that, as a general rule, the formation of the clot commences on the outside, that is, near to the coats of the vein, where the current must be somewhat slower than in the axis of the tube; and the first stage in the process is the settling of a patch or layer of fibrine upon the inner surface of the vein. This is increased by the addition of successive layers upon the interior, whereby the channel for the blood is diminished. Soon the tube is completely obstructed; this result being commonly accelerated, more or less, by the clotting of the blood, in addition to the settling of the fibrine. The two processes—fibrinous deposit and blood-clotting—which differ, probably, only in the circumstance that the greater rapidity of the latter causes the entanglement of the red globules with the fibrine, go on somewhat irregularly, whence the mottled appearance of the coagula; but as a general rule, the clots are firmer and more fibrinous near the exterior, softer and darker in the middle. The exterior of the clot is usually smooth; sometimes having quite a polished appearance, except at the points where it has become adherent to the side of the vein. These adhesions are not usually very extensive; they are most commonly found where the clot began to form, and vary in their firmness with the period of their duration."

MOORHEAD records a case of angina pectoris, with fatal result, in which the post-mortem showed a large heart, very fatty, weighing seventeen ounces, with all its valves healthy, but the coronary arteries, for an inch and a half from their origin, converted into rigid tubes by calcareous deposit. Lungs healthy, but congested. Death probably occurred by way of syncope during an asthmatic attack. Symptoms of angina had existed fifteen years, and he had had two or three slight paralytic seizures. The patient was a male, æt. 63.

WILLEBRAND, of Helsingfors, finds the use of *secale cornutum*

advantageous in cases where local hyperæmia is dependent upon a laxity of the walls of the blood-vessels. It has proved effectual in several cases of acute and chronic inflammation of the eye, in indurations, tumefactions, and catarrhal affections of the uterus, in enlarged spleen after intermittents, when quinine had failed, and in exophthalmos with thyroid enlargement.

VANZETTI has recently employed, with great success, digital compression of the main artery of a limb in cases of severe inflammation.

In a paper on pericarditis, MARKHAM insists on the circumstance that the inflammation and the changes it produces are not essentially the disease, but rather the prior state which gives rise to the local disorder. This consideration is of high importance in directing the treatment. With regard to the various effects produced by pericarditis on the heart itself, he is of opinion that the organ atrophies or undergoes degeneration if its muscular tissue has been damaged by the inflammatory process; on the other hand, if the muscular tissue is sound, but the valves have been damaged by concurring endocarditis, hypertrophy, with or without dilatation, may result.

FOX records a case of well-marked but temporary cyanosis coming on in an infant of eleven days old, previously quite healthy, and disappearing subsequently in a gradual way, without any dyspnoea or lowering of temperature, or any notable symptom except rather considerable hæmaturia. Fox discusses the causation at length, and concludes that probably obstruction existed somewhere, and that its seat was at some point beyond the ductus arteriosus. In the second part of his paper he states the grounds which lead him to believe that a murmur produced at the foramen ovale must be presystolic in point of time, and criticises Markham's and Da Costa's observations.

CREGEEN records a case of rupture of the right auricle of the heart. The pericardium was distended with coagulated blood, which had issued from a rent on the anterior aspect of the right auricle, situated between the entrance of the inferior vena cava and the right auriculo-ventricular opening, about six lines in length. The wall of the right auricle was, if anything, a little thinner than usual, but the remainder of the heart, its valves included, was perfectly healthy. There was no fatty degeneration (it is not stated that the microscope

was used). The man was aged 38, robust, in good health, and was sitting still in an easy chair at the time of his fatal seizure.

MARKHAM discusses the physical signs and general symptoms of pericarditis.

REID records four cases of thoracic aneurism, with clinical remarks, especially relating to contraction of the pupil, and the *modus operandi* of belladonna in producing dilatation. The third case is one of that peculiar disorder of respiration, in which every few seconds the movements become greatly accelerated and laboured, and again in a few seconds decline to the normal rate. The pulse was accelerated remarkably from the latter half of the period of respiratory distress to the end of the first half of the same period. Orthopnœa existed. After three weeks' rest in the hospital, the respiratory distress almost entirely disappeared. Autopsies were obtained of the second and fourth cases; in the first and third they were refused.

In some remarks on some points in the diagnosis and treatment of heart disease, BARLOW contrasts the differences of the pulse and other symptoms in aortic and mitral-valve disease. The latter far more than others gives rise to pulmonary and hepatic congestion, and to impeded biliary and urinary excretion. Stimulants are far more useful (especially senega) in aortic disease than in mitral, in which we must chiefly look to relieving the engorged portal circulation by catharsis, and the pulmonary by inducing expectoration. Barlow remarks that a dilated ventricle in an anæmic person with lax arteries will present most, if not all, the symptoms of aortic-valve disease, and the same may be said of disease of the ascending aorta. Other forms of pulmonary obstruction may present all the symptoms of diseased mitral valve, murmur inclusive.

A case of latent thoracic aneurism is described by ROBINSON. The patient suffered from pains referred to the left side of the chest, and to a spot opposite the fourth or fifth dorsal vertebra. He had puriform expectoration and paroxysmal cough, of a very peculiar sound. After many months a low, deep-seated systolic murmur was detected, certainly not proceeding from the heart. Death occurred suddenly, but not from bursting of the aneurism.

GUBLER records two cases in which, after the proportion of white and red corpuscles had been observed during a cachectic malady to

remain normal for a long time, the number of the former suddenly increased to such an extent as to constitute well-marked "leucocythæmia." The first case was a scrofulous male, æt. 21, who suffered from intermittent fever rebellious to quina. Pneumonia set in and proved fatal in three days; on the first day a great increase of white corpuscles was observed, which was still greater on the second.

WALLMANN, in 300 autopsies of persons of all ages, and dying of the most various diseases, found the foramen ovale patent in 130; Klob, in 224 out of 500.

MUSHET publishes a brief review of the pathology of angina pectoris, with two cases (one fatal, with autopsy) from his own experience. He considers angina pectoris to be a "neuralgic affection always connected with some heart disease, in which respect it differs from simple neuralgia, being an accidental complication of the latter," induced generally by the usual causes which excite neuralgia in other parts. He believes that it is not the peculiar pang (the neurosis) which causes death in fatal cases, but the coexisting organic disease. The intercostal nerves he regards as those specially implicated.

BARLOW gives various cases illustrative of the ætiology of enlargement of the heart; he enumerates the following causative conditions: (1.) Obstruction from changes in the orifices of the heart, or in the course of the circulation. (2.) Obstruction arising from changes in the quantity or physical properties of the blood. (3.) Deficiency of strength in the parietes of the heart itself. In several of the cases narrated, there was no apparent organic change that could account for the hypertrophy. He refers to Gairdner's view, that cardiac hypertrophy may result from pulmonic adhesions preventing the due expansion of the lungs, and so necessitating an expansion of the heart to occupy their place. From this he dissents.

MARKHAM, on the treatment of pericarditis, emphasises the necessity for distinguishing between rheumatic and non-rheumatic instances. The latter is a secondary affection, and is rarely of such intensity as to require special modification of the general treatment. The former generally becomes the prominent phenomenon, and the object of especial care. Venesection is to be employed with moderation and caution; it cannot stop the inflammation, or prevent

exudation, but it may give temporary relief to the sufferings of the patient, and relieve the congestion of the heart and lungs. Local bleeding by leeches or cupping is much more safe, and often of great service; yet in feeble subjects even this mode may be injurious. Markham has seen it produce puerperal hæmorrhage, or choreal symptoms, in each case followed by death. Mercury used to salivation Markham regards as altogether mischievous and useless, quoting an analysis of Taylor's cases by Bennett.

A case of laceration of one of the coronary arteries of the heart is reported by FEIGNEAUX. The tendinous centre of the diaphragm was also torn. The author ascribes the occurrence to violent efforts in vomiting. A case of rupture of the heart by Buys, and one of rupture of some of the cordæ tendineæ of the mitral valve, is given by Allix.

A highly interesting case of acute inflammation of the thoracic duct is related by WORMS. The whole length of the vessel from the cisterna chyli to the subclavian vein contained an extraordinary quantity of pus; its walls were thickened, opaque, and adherent to the surrounding tissue. The inner surface was rough, like felt, denuded of its epithelium, and presented numerous red, ecchymosed spots. Numerous swollen glands surrounded the cisterna chyli, the efferent lymphatics from which contained pus. There were purulent collections in the left kidney and spleen, but the author does not regard these as having set up the inflammation in the duct. The symptoms were those of fever, severe pain, enormous swelling of the left arm, and distension of the superficial veins. There were also intense jaundice, delirium, and finally death by coma.

WHALLEY relates a case of severe purpura, the urine being loaded with blood, which was arrested in two days by calomel and gallic acid, ana gr. ij—iij, 4tis horis, with gr. j of quinine. Ptyalism was produced. The patient was in robust health before the attack, and had not been without vegetables.

COCKLE observed 178 cases of cardiac valvular disease, being 90 males and 88 females; 90 had mitral disease, 71 aortic, 17 both mitral and aortic. In 58 rheumatic fever was the assigned cause, viz., in 35 with mitral, 16 with aortic, and 7 with both mitral and aortic disease. After citing the opinions of Skoda, Ludwig, Budge and Schiff, Weber and Brown-Séquard, as to the causes of the heart's rhythmic action and movement, and the mode in which it is

influenced by the vagus and other nerves, he states his own opinion, relative to the first sound, that it is produced by the reaction of the lower column of blood in the ventricles upon the upper layer of blood in the auricles (the valve intervening). He disputes Skoda's statement, that intensification of the pulmonary second sound is the pathognomonic sign of mitral regurgitation, and points out two other phenomena which aid in diagnosing and even measure to some extent the degree of regurgitation. One of these is the state of collapse, and want of filling of the arteries. The other is the reduplication of the second sounds of the heart. The discussion of various other points does not admit of being abstracted.

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WHITEHEAD adduces evidence to prove how much the duration of whooping-cough can be diminished by treatment. Thirty-five cases, not treated till the disease had lasted three months, were cured, on

an average, in less than twenty-five days; and eighty-seven, whose treatment was commenced within fourteen days after the onset, were cured in the same time. Opium, usually as Dover's powder, and belladonna were the principal remedies, the latter being given sometimes in the form of a salt of atropia. Emetics and repeated small doses of calomel were associated with the other remedies occasionally with very good effect.

BONAFOS-LAZERMES records a good example of bronchial affection, with asthmatic paroxysms succeeding to an habitual perspiration of the feet, and resisting all treatment except that of the hydrosulphurous baths at Amelia. The mode of application was by vapour baths and inhalation of the vapour.

HOLL recommends the application of small blisters to the back of the neck, encroaching a little on the scalp, as exceedingly efficacious in the treatment of pertussis. One or two blisters will generally suffice.

HYDE SALTER publishes a paper on the varieties of asthma. He starts from the assumption that the essential state in asthma is always constant, whatever may be the cause or complication. The bronchial constriction is always there, whether there be bronchitis or none, whether the paroxysm be apparently causeless or created by ipecacuanha, hay emanations, or gastric irritation or uterine. He gives the following table, which we modify a little: (I.) Idiopathic, uncomplicated, or spasmodic asthma.—(A.) Intrinsic, *i.e.* irritant applied to the lungs themselves—(1) As from fog, smoke, &c.; (2) from ipecacuanha; (3) from hay; (4) from animal emanations; (5) from certain airs; (6) toxhæmic. (B.) Excitomotory or reflex asthma—(1) Peptic asthma; (2) asthma from organic nervous irritation; (3) asthma from peripheral cerebro-spinal irritation. (c.) Central asthma (epileptic, emotional). *Periodic* asthma, without any apparent exciting cause, forms a subdivision of the above. (II.) Symptomatic, complicated, or organic asthma.—(1.) Organic cause, *vascular* (asthma complicating bronchitis, humid, senile, cardiac asthma. (2.) Organic cause, nervous (Heberden's case, &c.)

VERHAEGHE shows, from the results of his experience at Ostend, compared with that of others in inland towns, that Laennec's opinion as to the comparative rarity of phthisis on the sea-coast is correct. In the interior, the deaths from phthisis amounted to 19 per cent. The deaths from phthisis in the civil hospital at Ostend

were 6·60 per cent.; among seamen, 4·6 per cent. He lays stress on the two following conditions as most probably exerting a powerful influence in the limitation of phthisis, viz., the constant and free use of marine animals for food, and the nature of the employment of seamen and port labourers, which require them to be much in the open air and to exercise the chest-muscles.

TROUSSEAU communicates the following observations on the treatment of asthma. The cautious application of diluted Liq. Ammoniae to the tonsils is beneficial, but care must be taken to increase gradually the strength of the solution. In order to prevent the recurrence of the attacks, the patient is to take gradually increased doses of belladonna for the first ten days of each month at bedtime; during the second ten days he takes a spoonful of Ol. Terebinth. daily, and during the remainder of the month he smokes each day an arsenical cigarette. This plan to be followed for two years, and besides for one year he takes every ten days, *summo mane*, ʒj of calisaya bark in a cup of sweetened coffee.

DUPRÉ draws a distinction between what he calls *cancerous pulmonary phthisis*, where the cancerous growth forms disseminated nodules throughout the lung, and another form where the cancer forms masses, either pushing the lung before them or else invading and infiltrating its substance. A case is related of the first pathological state in which the right lung was excavated by several caverns in the two lower lobes, while whitish, encysted tumours were scattered through its extent. The left lung was similarly affected, but the caverns were fewer and smaller. The tumours, he says, were clearly encephaloid. There was no pleural effusion. The symptoms were those of pneumonia and pleuritic effusion (ægophony), with hectic fever, general earthy pallor, and extreme emaciation. Death occurred in about four months from the commencement of the disease.

CHURCHILL records several cases of pertussis greatly relieved or arrested by the inhalation of a little chloroform.

Some valuable remarks are made by the *internes* of the Hôpital des Enfants Malades respecting the kind of cases of croup and diphtheria in which tracheotomy should be performed, and where it should be abstained from.

LOISEAU strongly recommends the application of tannin and alum, in powder, to the affected parts in angina membranacea, either by insufflation or a sponge. The application is to be made

every quarter of an hour, or hour, and the two substances are to be used alternately. No medicine is given, but a generous diet and wine.

CORSON strongly recommends the adoption of certain positions of the shoulders and the tension of certain thoracic muscles as an important aid in physical examination. He thinks that "these expedients for thinning, condensing, and tightening the fleshy walls of the chest, add fully one third to our power of detecting the earliest signs of consumption."

A quotation from TROUSSEAU's report on the treatment of croup (which is evidently purely diphtheritic, not our inflammatory disorder) may be referred to with advantage. He shows the utter uselessness of leeching, blisters and emetics, and that topical treatment is the only one that avails.

MANDL recommends, in the forms of bronchitis which he denominates *sèche* (dry), fumigations with the following mixture: acetic acid, ziss ; creosote, ziss ; water Oj. M. This is to be placed in a two-orificed glass balloon, to be heated, and the vapour to be inspired.

BOURGADE directs attention to jerking respiration, as one of the earliest physical signs of pulmonary tuberculosis. He gives the details of a post-mortem to show that it is not necessarily dependent on the presence of adhesions.

GRIESINGER describes his experience of injecting nitrate of silver solution into the bronchi, after the manner of Horace Green. He truly remarks that the operation is not without its difficulties, and that it requires a previous preparation of some days to accustom the larynx to the introduction of the foreign body. Further, he sees no means of determining the passage of the tube into the right or left bronchus, but he believes it will usually enter the right, for anatomical reasons.

ULRICH records two cases of asphyxia from the inhalation of chloroform, in which life was saved by artificial respiration.

HORACE GREEN describes the lesions of the epiglottis as consisting either in erosions of the mucous membranes or ulcerations of it and of its glands, or in cedema of its areolar tissue. The erosions and ulcerations are sometimes of tuberculous character, but often not. Unchecked disease of the epiglottis may, he thinks, originate pulmonary disease.

OPPOLZER considers shortly the various causes of laryngeal con-

traction or impediment. Acute catarrh may cause the well-known "œdema circa glottidem" in the aryteno-epiglottic folds. The effused material is sometimes fibrinous, and produces abscess. Inflammation of the perichondrium is not very rare; it occurs chiefly in connection with typhoid fever, or pyæmia. Chronic catarrh may cause laryngeal contraction by inducing hypertrophy of the mucous tissues. So may diphtheritic exudation. Epithelial growths, fibrous polypi, lipomata, syphilitic disease, the Greek leprosy, tuberculous ulcerations, typhoid ulcers, variolous pustules (the cicatrices of), scurvy, spasm of the glottis, foreign bodies, external tumours, &c., may all have the above effect.

GREEN relates the following fact relative to the antagonism between phthisis and ague. A marsh in Rutland (U.S.) having been converted into a pool, ague disappeared, but pulmonary phthisis became so rife that, at the request of the inhabitants, the marsh was restored, whereupon the fevers resumed their sway and phthisis ceased.

In pertussis, vaccination has sometimes had a beneficial effect, the vaccine pustule pursuing its regular course. Tannin in doses of about five grains daily, with saline infusion of senna, has been very successful.

A case is recorded by POSNER in which a phthisical girl, of scrofulous habit, suffering under pulmonary phthisis and hysteria, together with a perfect paralysis of the tongue as to motion and sensation, and complete aphonia, was cured of these latter symptoms by continued Faradization.

Case of pleurisy of the right side, with emboli of the right pulmonary artery, recorded by KEYSER. The patient lived five days after the first symptoms of arterial obstruction. There was some tuberculosis of the lungs. Dense fibrinous clots existed in the right ventricle, in the pulmonary artery, and especially in its right division, which was completely obstructed by them.

The diffusion of watery vapour in the air is strongly recommended by DEBENHAM as a means of warding-off bronchitis in patients who have undergone tracheotomy.

LUZINSKY, from his large experience at the Vienna Children's Hospital, regards croup as a disease depending on a particular crisis of the blood, "which determines pseudo-membranous deposits, these being only the local and simple expression of the general

diathesis." To modify this crisis of the blood he relies on alkalies, the carbonate of potash or soda, the doses of which should be ʒss to ʒij in the day. To prevent the localization of the inflammation in the larynx, he does not advise leeches, but the cautious application of cold to the throat, the rest of the body being kept warm, and small spoonfuls of milk and cold water being given internally. If cold cannot be applied, blisters should be placed over the sternum. He gives opiates to lull laryngeal spasm. To destroy the false membranes, or expel them, Luzsinsky employs a solution of Arg. Nitræ, or, if this fail, emetic doses of sulphate of copper. During three years, among 15,000 children, 30 cases of croup have occurred; and during three other years, 60 took place among 23,000. Of these 90 cases, 55 were boys, 35 girls. Among children one year old there were 11 cases; from one to two, 16 cases; from two to three, 16 cases; from three to four, 8 cases; from four to five, 9; from five to six, 15; from six to seven, 14 cases; 1 occurred at the age of nine. Of the 90 cases, 75 recovered, 15 died. The earlier the treatment was commenced the more success was generally obtained.

COTTON, experimenting with various substances at the Brompton Hospital on cases of phthisis, comes to the following conclusions respecting chloride of sodium. In some cases it increases the appetite and acts as a general tonic, equivalent to the bitter drugs. In doses of one to two drachms, gradually administered, it does not usually derange the digestive organs or occasion thirst. It does not appear to be a substance deficient in the tuberculous crisis, or to have any direct effect upon phthisis when fully developed.

HYDE SALTER has some remarks on the treatment of asthma by coffee and mental excitement. He thinks that both act in the same way, viz., by exalting the voluntary power, and preventing the dominance of excito-motory action.

In a long report on tracheotomy, MARTINI quotes the following observations, made by Neudörfer, respecting a condition inducing laryngo-stenosis. "There exists a pathological condition of the air-passages, consisting in an infiltration and subsequent shrinking of the cartilages, entirely analogous to the shrinking of the cartilage of the eyelids in tracheotoma. This shrinking may remain limited to the larynx, or extend also to the air-tubes, even as far as the most minute (that are provided with cartilages). Such

shrinking of the cartilages of the larynx occurs in stenosis certainly far more frequently than is usually supposed. The only sign by which this pathological state can be recognised when it is limited to the larynx, is the small size of the latter. If it extends to the air-tubes, it may be detected—(a) by a deviation of the larynx to the right or left of the median line; (b) from the relative smallness or narrowness of the air-tubes; (c) from the spiral or axial twisting of the air tubes; (d) from the wrinkles and folds detectable by the finger on the inner (!) surface of the air-tubes, provided only that they are ascertained not to be the callous margins of ulcers; (e) from the oblique position of the anterior lamina of the canula, supposing tracheotomy to have been performed exactly in the middle of the cricothyroid ligament In the majority of cases syphilis is probably the cause of the shrinking.”

A completely recorded case of acute laryngitis, in which life was in all probability saved by the early performance of laryngotomy, is communicated by BULLEY. The tube was finally removed twelve days after the operation, and she was in a fair way of the most complete recovery six weeks later. Calomel, gr. ij, 6tis horis, was administered for two days after the operation till diarrhœa set in; at the same time the atmosphere of the room was kept humid and warm by means of the diffusion of steam through it. Wine and stimulants were required after the calomel had been discontinued.

In a clinical lecture on asthenic pneumonia, RUSSELL observes, that the low forms of pneumonia, at any rate in towns, are far more common than those of a more sthenic character. Of the general signs, the respiration is the one which varies least, being much increased in frequency, except in instances of great prostration. The fever, pain in side, cough, and expectoration, are very varying. On the other hand, the physical signs are very declaratory of the disease. The diagnosis from pleuritic effusion may often be assisted by observing that the dullness follows a line sloping downwards and forwards along the side of the chest, supposing the inflammation to be limited to the lower lobe. The disease may, however, affect the upper lobe, or be deep-seated at the outset. It is necessary to be on our guard against the possibility of suddenly fatal syncope. Stimulants are frequently the most necessary and important remedies; blisters are also of much service, and sometimes a few leeches.

PEACOCK examines the question, whether there exists any antago-

nism between phthisis pulmonalis and ague. After noticing the observations of previous writers, he remarks that the question would appear to admit of ready solution, by comparing the mortality from phthisis in different districts of a similar character, except that in some, aguish affections should be prevalent, and in others, that they should be absent or only rarely seen. He objects to a comparison of this kind made by Greenhow, that no account is taken in it "of the relative number of persons at different ages, nor of the influence of climate, though these are most important considerations in estimating the relative prevalence of consumption in different localities." He then proceeds: "To effect a satisfactory comparison, the districts compared must not only contrast as regards the prevalence of ague, but they must possess similar climates, and must correspond in the density of the population, the proportion of persons at the ages most prone to consumption, and in the social position and occupations of the inhabitants. The population must be but little affected by immigration, and the mortality must not be modified by the existence of large public hospitals, or institutions in which persons are received from other localities." Peacock believes that he finds the requisite instances in certain districts situate near each other in the counties of Cambridgeshire, Northamptonshire, Huntingdonshire, and Bedfordshire, and has constructed a table showing the annual proportion of deaths from ague and remittent fever combined, from ague only, from phthisis, from other diseases of the respiratory organs, and from all causes, per 100,000 persons of both sexes, and of each sex separately. The table also includes a statement of the population in 1851, the extent of the districts, the proportion of persons to the square mile in each, and the relative proportion of persons between the ages of fifteen and forty-five inclusive. The general result afforded by these data is this: "While as a general rule a large prevalence of aguish affections coincided with a low rate of mortality from consumption, and a small prevalence of ague with a high rate of mortality from consumption, this rule is liable to such marked exceptions that we are not warranted in inferring that the susceptibility to phthisis is in any great degree influenced by the causes which give rise to ague."

WILLEMIN states that diluted carbonic acid gas, employed in inhalations, is especially efficacious in chronic inflammations, with atony of the mucous membrane and exaggerated secretion, and in

nervous affections of the respiratory passages, but that it is injurious in phthisis. Its primary action is to produce excitement, which is followed by a sedative effect. In addition to this general action, the gas possesses an anæsthetic power over wounds and parts denuded of epidermis. It is recommended in granular pharyngitis.

SEMELEDER recommends the use of the laryngeal speculum employed by Garcia and Czermak for the examination of the fauces and larynx. Not only the entrance of the larynx and the epiglottis, but the chordæ vocales, the inner surface of the trachea, and even its bifurcation (occasionally), may be recognised.

KEYSER relates how a man, æt. 28, convalescent from pleurisy of the right side, after violent mental emotion was seized by corpse-like pallor and icy coldness of the whole body, with cold sweat and difficult breathing. The action of the heart was stormy and irregular, its sounds normal. Death occurred on the fifth day, in the way of asthenia. At the autopsy the results of pleurisy were found, and some small tuberculous deposits. The left ventricle was empty, the right contained two fibrinous coagula. In the pulmonary artery were several firm coagula, extending a long way into the right branch, but only a little into the left.

A continuous musical murmur, at first of piping character, afterwards more like the rattling of a wheel, stronger at each inspiration, especially in quick respiration, heard in the mid and lower part of the sternum, and also in the back, is connected by its observer, LEMAIRE, with the condition of the liver, which was greatly shrunk by cirrhosis, and left the vena cava exposed to the pressure of the vertebral column.

NIEMAYER has the following observations on the treatment of pneumonia. After remarking upon its eminently cyclical course, and its almost invariable termination spontaneously in recovery when the patients are strong and the disease of moderate severity, as well as on the danger of indiscriminating venesection, he proceeds: "In the treatment of pneumonia, I have made extensive use of *cold*, and can confidently recommend my method, from the highly favorable results which I have obtained during a lengthy series of observations. I cover the chest of the patient on the affected side with napkins wrung out of cold water, and I order renewal of the cold applications every five minutes. In almost all cases the patients feel greatly relieved after a very few hours, the

pain and dyspnœa are diminished, the pulse becomes less rapid, and the high temperature falls, often as much as a degree. The improvement is often surprising, and generally is permanent throughout the illness, so that the attendants, who may at first object to the somewhat troublesome mode of treatment, gladly persevere in its application. In very few cases does the use of cold epithems fail in giving relief.

The experience of the French surgeons at Cayenne has proved the possibility of diphtherous larvæ being developed in the nasal fossæ and frontal sinuses of human beings. From one of the larvæ a perfect insect has been obtained, to which the name *Lucilia homini vorax* has been given. The symptoms are itching in the nasal fossæ, intense supra-orbital headache, œdema of the nose, extending to the face, abundant epistaxis, indications of intense inflammatory action, which may extend to the membranes of the brain and occasion death. "In favorable cases a cure may be effected; but loss of substance, more or less extensive, and consequent deformity in the nose and its neighbourhood, may always be looked for." Injections of liquid which may destroy the larvæ, as chlorine water, solution of corrosive sublimate, constitute the best treatment.

MISSOUX considers sulphate of copper of peculiar efficacy in the treatment of croup, not only on account of its emetic action, which is attended with less prostration than that of antimony, but because it possesses the property of so modifying the secreting surfaces, that after the false membranes are detached they cease to be re-formed, "or if they are formed, they no longer possess the plasticity which renders them so adherent to adjoining parts." This topical action may be observed in cutaneous diphtheria, and in that of the vulva and nose. To young children he administers one eighth of a grain in a teaspoonful of water every ten minutes, until vomiting is produced. To adults he gives half a grain in the same way. Out of thirty diphtheritic cases, Missoux only lost two.

MOORE records a case of pleuritis and empyema occurring in a female child, æt. 8, in which the effused fluid appeared to be removed by a very profuse, fetid expectoration. The left side of the chest gave, on auscultation, a muco-crepitating râle down to the mammary region in front, and the mid-scapular behind; below these points nothing but indistinct tubular respiration could be heard. There was bulging of the side and some displacement of the heart. In the course of recovery the muco-crepitating râle pervaded the lower

part of the lung, extending *pari passu* with the absorption of the fluid. It did not appear in this case that any fistulous communication had been formed between the pleura and the bronchi.

TUDOR strongly recommends the practice of scarifying the epiglottis in cases of œdema glottidis. Patients who were suffering the most urgent distress from dyspnœa and inability to swallow even fluid, in a few hours after the operation breathe with comfort and swallow beef tea well. A well-curved, sharp-pointed bistoury, with its edge either blunt or guarded, is to be introduced with the right hand, guided by the left forefinger, and carried to the base of the epiglottis, where three or four incisions are rapidly made through the mucous membrane. "The patient is then directed to clear out the throat with forcible expirations, and gargle with water as hot as he can bear." Relief is immediate. A repetition of the operation may be required.

EVANS, in a paper on 'Tracheotomy in Croup,' expresses his dissent from the opinion of those eminent authorities who dissuade the operation. He grounds his own view on the following considerations: (1.) The high rate of mortality from croup, both with and without treatment. (2.) The immediate cause of death in a large majority of the fatal cases of the disease, viz., asphyxia. (3.) The recorded cases of croup in which tracheotomy has been resorted to when the patient has been all but suffocated, and in which complete recovery has followed the operation. (4.) The great success which has attended the performance of tracheotomy for croup in France.

SKODA observes, that in many cases the resorption of pleuritic effusions is prevented by the circumstance that the capillaries in the sub-pleural tissue are obliterated. He explains the beneficial effect of injected iodine, &c., by its producing inflammation, which is necessary to the development of new capillary vessels. Paracentesis thoracis, in cases of long-existing effusion, he thinks only admissible when the dyspnœa produced is so great as to threaten suffocation. He notices particularly the impossibility of emptying the pleural cavity as long as the lung is bound down by thick, false membranes, which also prevent the diaphragm from rising. As to the efficacy of external applications, Skoda is very doubtful on theoretical grounds, but allows that he has, in individual instances, obtained striking results with mercurial, iodine, and copper oint-

ments, without, however, being able to state the special indications that should determine the use of one rather than another.

POLLOCK has a paper on the 'Elements of Prognosis in Phthisis.' He is inclined to consider the average duration of the disease as much greater than has been usually stated, exceeding the period of three years, which is about the medium assigned by high authorities. The disease always proceeds by a succession of attacks, even when most rapid. In chronic, diffused tubercle, the deposit often proceeds in the following order; first, one apex; next, the opposite; third, the base of the side last attacked. "The most chronic is, however, often diagonal, as right apex, left base, left apex, right base, successively." A curious result of some thousand observations may be thus stated: "When the observed and customary order of physical signs is reversed, or in any important respect anomalous, the chances of prolonged life are greater. The more each case approaches to the ordinary type of the disease, the more rapidly fatal is it sure to be." The presence of the conditions antagonistic to tubercle, or rarely coexisting with it, indicates great prolongation. This is especially true of the complication with emphysema. In 190 cases, hereditary predisposition was observed in 69, all these having lasted upwards of four years. An absence of hæmoptysis was noted in 65, and of diarrhœa in 151. Moderate or great emaciation was present in 92, slight in 97.

HYDE SALTER reviews the principal remedies we possess for the relief of asthma, enumerating tobacco, chloroform, opium, Indian hemp, stramonium, lobelia, æther. Chloroform he considers to arrest the asthmatic paroxysm more speedily and certainly than any other remedy. It is to be inhaled, but not to the extent of producing deep insensibility. It is not safe to allow patients to inhale it themselves. *Stramonium* is sometimes marvellously efficacious, but often disappoints the practitioner. This great inconstancy of effect he thinks may depend on the mode of preparing the drug. The varieties *Datura ferox* and *Datura tatula* are more powerful than *Datura stramonium*. He states, on Alexander's authority, that the seeds are far more potent than the leaves; they are to be used in smoking cautiously, in small and gradually increasing quantities. Salter is in favour of the practice of smoking a pipe every night on going to bed, whether the asthma is threatening or not. *Lobelia* has not proved of much benefit in Salter's hands, but he is

inclined to believe that it may be very efficacious if given in the very large doses employed by some American physicians. It then produces symptoms identical with those of tobacco-poisoning. It is tolerated very differently by different individuals. He approves of Elliotson's plan of giving small and gradually increased doses frequently. Æther has only acted well in a single case of Salter's, but in that it was like a charm. The use of *opium* he discounts *in toto*. Of tobacco, employed as a sedative, he states that "asthmatics are very commonly smokers, and many of them find in the habit an almost unfailing antidote to their disease." But it is rather useful as a prophylactic than as a remedy for the spasm when present.

GAIRDNER, in his clinical notes, relates two cases of pleuritic effusion, in one of which thoracentesis was employed, both recovering about equally well. He regards the operation as usually performed as merely a palliative measure, to be employed for the sake of obtaining temporary immediate relief in cases of great distension. Only that portion of the fluid which distends and bulges the cavity can be drawn off by the simple trocar, though by means of an exhausting syringe, employed by Bowditch, evacuation can be effected much more completely. Gairdner is inclined to expect good results from the use of this instrument.

In the 'Buffalo Medical Journal,' FLINT has given a clinical report on fifteen cases of pneumonia. Ten of them were complicated with delirium tremens. One proved fatal. Quina, opium, alcoholic stimulants, and nutritious diet, constituted the treatment. The first of these remedies was rather used as a preventive of intermittent fever, which is a dangerous complication, than as a remedy for the pneumonia. Opium, he thinks, lessens the perturbatory effects in the economy of the local inflammation, if indeed it does not diminish its intensity. All the patients were allowed to take food as nutritious in quality and as freely as they desired. Neither bloodletting, general or local, tartar emetic, mercury, cathartics, or counter-irritants, were employed. The author makes some useful observations on the use of these means, and remarks, in conclusion, that the natural history of a disease, and its intrinsic tendency to life or death, constitute the true point of departure for the study of its therapeutics.

ROBIN, remarking on the independence of bronchitis in relation to pneumonia, dwells at some length on the modification of struc-

ture which the mucous lining undergoes, and on the different source of the capillary plexus of the bronchi and air-cells, which he thinks are fully adequate to account for the distinctness of the two diseases.

O'DALY speaks very favorably from his experience of the use of tincture of laricis (larch-bark) in pulmonary hæmorrhage and in epistaxis. It succeeded when other remedies failed.

A case of syphilitic laryngeal disease, in which tracheotomy was successfully performed, recorded by WHARTON.

In a paper 'On some of the Effects of Primary Cancerous Tumours within the Chest,' BUDD draws special attention to the inflammatory changes which had occurred, such as pleural thickening, inflammatory disorganization of the pulmonary tissue and the formation of pockets of pus, adhesion of the pericardium, and abundant effusion of lymph on its outer surface. He attributes these changes to the destruction of the pulmonary nerves by the cancerous tumour, which in all the cases was situated at and involved the root of the right lung, and states that inflammation of the gall-bladder is probably also caused sometimes in the same way, by cancerous tumours in the portal notch of the liver.

GOODFELLOW records two cases of empyema, illustrating the advantage of making two openings, and adopting the plan of "drainage," in the operation of paracentesis. The pus flows off as it is formed, and does not decompose.

COTTON, after carefully observing the action of Potassii Iodidum upon twenty-five phthisical patients, found that it was productive of no noticeable effect, except that it occasionally caused dyspepsia and some loss of weight.

GULL records three cases in which gangrenous pneumonia appears to have supervened in consequence of aneurismal, cancerous, or fibroid tumours having involved the root of the lung and the corresponding nervous plexus. In each case one lung was affected.

DIGESTIVE SYSTEM.

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BRINTON'S work on diseases of the stomach consists of a series of lectures, preceded by a chapter on its anatomy and physiology. The first lecture treats of the symptoms of gastric disease generally, particularising pain, eructation, regurgitation, vomiting, hæmorrhage, and flatulence. Lecture II examines circumstances connected with the examination of the stomach after death—gastritis, gastric catarrh, hæmorrhagic erosion, and follicular ulceration. Lecture III treats of ulcer of the stomach. Lecture IV of cancer. Lecture V comprises cirrhotic inflammation, or plastic linitis of the stomach, suppurative linitis, tumours, hypertrophy, atrophy, dilatation, secondary inflammation. Lecture VI treats of dyspepsia. With regard to vomiting, he propounds the general rule, "that the facility with which an irritation produces vomiting varies (other things being equal) with the closeness of alliance between the stomach and the irritated part." The production of flatulence by secretion of gases from the mucous membrane itself he entirely rejects. On the subject of gastric catarrh he observes, that a careful review of details "perhaps justifies us in suspending our judgment as to the nature (or even the substantive existence) of gastric catarrh, until larger and more exact information is before us." Hæmorrhagic erosion he thinks is often distinguishable during life, and may be regarded as ulcerative gastritis. Yet he entertains doubts whether, in many cases "which

can scarcely be distinguished from it," the post-mortem appearances are not in a greater or less degree the result of change occurring shortly before or after death. In ulceration of the stomach, Brinton does not believe there is anything special or peculiar, such as to distinguish the process entirely from ulceration affecting other parts. It may commence from a variety of morbid states, none of which *per se* would have been sufficient to cause the destruction of tissue. The circumstances which interfere with the healing of the gastric ulcer are paralleled by those that interfere with the healing of one in external part. The treatment of the vomiting most frequent in any cases of gastric ulcer is best arranged by limiting the amount of ingesta, relieving flatulence, and neutralizing acidity. If the stomach is extremely irritable, it is better to afford it as complete and prolonged a repose as possible, forbearing the administration of drugs, which oftener fail than do good. A properly regulated diet the author considers all-important; without its aid, drugs are powerless for good. In the commencement of the treatment, milk, given in small quantities and at frequent intervals, is most beneficial, and after some improvement has been obtained, ground rice may be mingled with it advantageously. As a rule, all alcoholic stimulants should be forborne. Bismuth and ice internally, and blisters, &c., externally, for the purpose of relieving pain, gallic acid, with dilute sulphuric, to arrest hæmorrhage, and tonics to improve the strength, are the chief remedies which the author advises. Opium he also believes to be endued with the same efficacy in the cure of gastric ulcer that it has been known to possess in the case of ulcers of the limbs. The pathology of gastric cancer is very fully inquired into. The author finds that the maximum liability is between the ages of 60 and 70. "Up to the age of 20, the whole risk is less than one-fiftieth of what it reaches between 20 and 30. The latter liability, again, is multiplied in the following decades of years by 3, 6, 8, and 10, respectively. The maximum then seems to sink to little more than half for the two next decades, ending at the extreme age of 100. Comparing the risk of gastric cancer with that of gastric ulcer, it would seem that the former is, on an average, barely one fourth of the latter; and that though much more distinctly and exclusively a disease of old age, its climax or maximum of risk occurs at least twenty years earlier than that of the gastric ulcer." The greater liability of the male to gastric cancer is shown by the division of 784 cases among 440 males and 344 females. As

regards the situation of the cancerous growth, it was found to occupy the pylorus in 219 out of 360 cases.

LEARED gives his experience and that of ADAMS relative to the treatment of tapeworm. He ranks kamala as equal in efficacy to spirits of turpentine and oil of male fern, and superior to kousso. Adams does not think it has any superiority over other acknowledged anthelmintics. The dose of kamala is (for adults) one drachm or more of the powder, or two drachms of the tincture, to be taken every three hours till six doses. If the griping or other effects are severe, or if the worm is all expelled before the above quantity is taken, the remedy may be omitted earlier. It is well to combine it with hyoscyamus.

FLEMING recommends the administration of nitrate of silver in severe dyspepsia and chronic inflammation of the stomach, after a more efficient manner than has been yet employed. The local action is what he looks to. He therefore either gives a dose, from half a grain to four grains in solution on an empty stomach at bed-time, desiring the patient to roll about afterwards, or he injects it by means of a flexible tube. He is well satisfied of the thorough efficiency of the proceeding.

HILLIER contributes a paper on diphtheria, giving an historical account of the disorder, or of such as seem to have resembled it closely, and reviewing the experience which has been recently gained in our own country respecting it. His conclusions are: (1.) That there has been in London and throughout England, for many months past, an epidemic of scarlatina and of scarlatinal angina, which has frequently taken a diphtheritic form. That there has been a great prevalence of many other varieties of angina. (2.) That there has been in some parts of the country an epidemic, and in this part of London (St. Pancras) some isolated cases, of true primary diphtherite, such as described by Bretonneau. (3.) That in some places the epidemics have coexisted. (4.) That some observers, both of late and in ancient times, have confounded the two diseases.

HUTCHINSON records a case of severe "ulcerative stomatitis" (so called), which was cured by the local application only of strong chlorate of potash solution. He assured himself of the absence of any notable ulceration, and considers, in conformity with Bretonneau's view, that buccal diphtheria would be the most correct term to designate the disorder.

KENNEDY makes some remarks on the diagnosis of aneurismal

from other abdominal tumours, by means of observing the effect of a deep inspiration upon the tumour.

BANKS records an interesting case of ascites apparently depending upon hepatic disease, in which tapping was performed twenty times in the course of fifteen months. After the last tapping there has been no recurrence of dropsical accumulation, and now, at the expiration of seven months, she declares she was never in better health. Banks looks on the case as important, as showing that we ought not to despair in every case of ascites appearing to depend on obstructive disease of the liver. No remedy was of any avail to arrest the peritoneal effusion. The strength was well sustained by a generous diet.

Two cases of severe and dangerous diarrhœa are quoted from the 'Presse Méd. Belge,' which were cured by the administration of half an ounce of white sugar every four hours. No other food or medicine.

A paper of interest by DIX, respecting the diagnosis of renal and hepatic tumours in the 'British Medical Journal,' January 1st, 1859.

Chlorine inhalation (Liq. Chlorin. in boiling water) found very useful in a bad case of diphtheria, by HODSON.

Some papers on the ailments of the stomach are contributed by OKE. He describes the following states: the neuralgic, the arid, the acid, the bilious, the inflated, the depraved, the spasmodic, the hæmorrhagic, the inflamed, and the cancerous.

Some remarks are made by RATTRAY on the acute dysentery of China. In two autopsies, the large intestine was found to be the chief seat of the disease; the mucous membrane highly inflamed, extensively ulcerated, and more or less gangrenous. The most common cause of the disorder is a chill caught by sleeping in draughts, uncovered, or on deck in the open air.

BRINTON, in the 'Croonian Lectures,' considers the pathology, varieties, and treatment of intestinal obstruction. He demonstrates the incorrectness of the opinion, that fæcal vomiting is due to an antiperistaltic movement, and shows that the ordinary propulsive action will, under circumstances of obstruction, produce a central returning current. The paralytic state of the bowel for some distance above the obstruction he refers partly to distension of the muscular layer, partly to inflammatory action. The pain which sufferers experience is, he thinks, of two kinds—one occasioned by distension of the vessels telling upon their nervous plexuses which accompany them, the other produced by distension of the intestine.

The latter is the more characteristic of obstruction. He believes that rupture of the thinned and softened intestine is not so frequent during life as the records of its occurrence seem to show, since such rupture might very easily be produced by the intestinal gases developed after death, or in post-mortem examinations.

Lecture II treats of the chief varieties of intestinal obstruction.

Bleeding from the lingual veins is recommended by MERTIVIER in inflammations of the throat admitting of depletion. "As a direct local evacuant it is particularly useful in the cases of women, children, and lymphatic individuals, proving a perfect abortive even in many cases of angina maligna."

BERCIOUX recommends the employment of belladonna in cases of faecal incontinence in children, attended or not with incontinence of urine. The remedy is taken internally, and in some instances also applied locally by means of a skein of thread introduced into the anus.

St. Germain tea in habitual constipation, lauded by HUFELAND and TESSIER :

Elder flowers	275 grains.
Fennel seed	90 "
Anise	75 "
Pot. Bitart.	75 "
Senna leaves	360 "

The senna leaves are to be steeped for twenty-four hours in alcohol, which is to be allowed to evaporate spontaneously. The whole is to be made into packets, containing each seventy-five grains, and the patient is to take a cup of infusion prepared with one of them every morning.

VIRCHOW finds, as the result of his examinations, that in secondary and metastatic parotitis, the gland-tissue is the essential seat of the morbid action. The acini appear as red grains, and gradually fuse down into small abscesses. Subsequently diffuse phlegmonous inflammation may take place.

LEHMANN records a case of excessive gastric irritability, in which all food taken was vomited together with frothy mucous fluid, from five minutes to two hours after swallowing it. A vast variety of means were fruitlessly employed, but finally, when the plan was adopted of resting the irritable viscus entirely by administering pure starchy matter, which could undergo no gastric digestion, improvement commenced; and by perseverance, with cautious additions, at

first of milk, afterwards of bread, the patient completely recovered. The absence of emaciation in this case shows, however, that all the ingesta could not have been rejected.

Tinctura Iodinii has been found effectual in some obstinate vomitings, including that of pregnancy.

In a clinical lecture upon vomiting, DUNCAN points out, *à propos* of a case, that vomiting is a very common accompaniment of inflammation of the lungs, both acute and chronic, and is best removed by the treatment appropriate to the pulmonary disease.

WALLMANN describes submucous gastritis as a purulent, diffuse infiltration, sometimes forming abscesses with cribriform openings in the superjacent mucous membrane. It extends to the peritoneum, or even to the pleuræ and pericardium. It is mostly observed as a secondary phenomenon in pyæmia, grave puerperal fevers, malignant variola, &c. Its occurrence is also favoured by certain epidemic influences. Its immediate cause is probably the formation of emboli in the vessels.

BOKAI divides retro-pharyngeal abscesses into—(1) idiopathic; (2) such as result from suppuration of lymphatic glands; (3) those connected with disease of the cervical vertebræ. The symptoms are, difficulty in swallowing, stiffness of the neck, nasal voice, reversion of the head. Abscesses connected with bone run a slower course than the others. The prognosis is favorable usually in the first class if the pus is evacuated early.

BREITHAUPt describes the occurrence of considerable displacements of the large intestine occurring consecutively to typhoid fever, and attended with obstinate constipation and gaseous distension of the gut. It does not appear that the distension was occasioned by the contracting cicatrices of ulcers.

CLEMENS records the following curious case. A male, æt. 23, was freed from a tertian ague by an attack of diarrhœa and tenesmus, having previously suffered from severe gastric derangement. A year later he consulted Clemens for copious vomiting of chylous matter, which was preceded by borborygmi, malaise, and colicky pains, and was followed by a copious sweat. It occurred alternate days, and was attended with constipation. One eighth of a grain of arsenic with potash, daily, effected a cure in eight days.

HARLEY related to the Pathological Society the results of experiments made on two young puppies, a sickly dog, a healthy dog, and a common snake. The object was to see whether inoculation with

diphtheritic exudation would communicate the disease. The material was taken from the fauces of a woman, in University College Hospital, supposed to be labouring under diphtheria. The fauces and pharynx of each of the dogs were scarified, and the abraded surfaces of two well rubbed over with the solid membrane, while the other two were inoculated in a similar manner with the yellow mucus. All the inoculations remained without effect.

CORVISART, having satisfied himself of the power of the pancreatic secretion to digest albuminoid materials, points out that there may occur a duodenal dyspepsia, caused by the vitiation, insufficiency, or absence of this fluid, the symptoms of which appear only from the second or third hour of digestion, attended by a deeper-seated pain than is felt in gastric dyspepsia. If the quantity of gastric juice be excessive, if the pylorus be unclosed, if the bile is not secreted in sufficient amount, the action of the pancreatic juice will be interfered with, inasmuch as the gastric juice will be unneutralized.

A case of intus-susception is recorded by STEELE, of Abergavenny, where the prolapsed bowel was replaced by powerful upward injection of warm water per anum, and subsequent cautious narcotism. The intus-susception could be felt by the finger in the rectum. The case was seen and treated early.

Two cases are related by DUFRESNE, in which he considers that blood, or blood and purulent matter, were discharged from the liver by rupture into the intestine. The first case is not conclusive; in the second, a painful swelling of the liver subsided after evacuations, per anum, of blood and pus.

A summary of a paper by BAMBERGER, on perforation of the vermiform appendix, contains much matter of detail, which is well worth reference. We can only notice some points. In six out of ten cases, the lower third of the vermiform appendix was perforated; in the same number the perforation was a hole; in the four others the whole circumference was destroyed. The attendant peritonitis was three times circumscribed, seven times general, but in the latter case there were always large, encysted collections in the right abdominal region. In two cases fistulæ had formed in the intestines, beyond the immediate vicinity of the original disease; in six cases pyæmia occurred. Respecting *ætiology*, Bamberger states the most frequent cause of the disease to be the formation of concretions, varying in size from that of a cherry to that of a bean. Constipa-

tion and intestinal torpor do not appear to have any notable influence. Eight cases occurred in the male, two only in the female sex. Eight of the patients were below the age of thirty, two above. As to *symptoms*, in most cases the disease set in with sudden, violent pain in the right lateral region of the abdomen. Fever occurred early. Constipation was not constant, nor vomiting. Almost all the patients had manifest tumour when they came under inspection. At a later period diarrhœa often occurred, even under the use of opium, but it was by no means of favorable omen. In five cases there occurred, in the course of the second or third week, a deceptive improvement of some days' duration, quickly followed by a violent increase of the malady. As to *duration*, in seven cases, whose course could be clearly traced from beginning to end, the period varied from twenty to fifty days, the mean being thirty-one. *Prognosis and treatment*.—In persons dying of other diseases, the traces of by-past inflammation have often been discovered in the shrunk-up remnants of the vermiform process. In these cases, however, it does not appear that actual perforation had occurred. It seems, however, probable that even after perforation a complete cure might take place, though Bamberger has not yet met with a positive instance of the kind. The treatment which Bamberger approves of most is that of opium, joined with leeching and poultices to the part. Purgatives, appropriate to cases of fæcal accumulation free from peritonitis, must in those here considered be employed very cautiously.

ULLMAN describes a case of cicatrix-like formations on the tongue. They formed patches of intense-white colour, sharply defined in some places, incapable of being peeled off, and when removed by the knife, leaving the subjacent papillæ swollen and red. When portions were separated, they were soon reproduced. The patches consisted of layers of epithelial scales, with a few patches and fungi-filaments. There were no symptoms.

Two interesting cases of vomiting of blood, in consequence of varicose veins in the œsophagus, are recorded by LE DIBERDER and FAUVEL. In one case the liver was cirrhotic, and the kidneys degenerated; in the other, the organs appear to have been healthy, except a double pneumonia. The dilated veins were prominent upon the mucous surface, but no rupture could be detected as the source of the bleeding.

A case is recorded by GRADENWITZ, in which the œsophagus was

notably contracted, and its walls greatly thickened, for some space above the cardia, while still higher up it was dilated. The stomach, liver, and intestines, were atrophied. The general nutrition had been well maintained during the whole period of forty-three years, during which the patient had suffered from a difficulty in swallowing. He was obliged to force onward the food which collected above the obstruction into the stomach, by stretching his body upwards. The accumulation then passed with a loud gurgle.

BETZ, in a memoir on intus-susception, has the following observations. He thinks the peristaltic movements have not so much to do with the occurrence of invagination as has been supposed. He rather refers to such circumstances as the smaller diameter of one segment of intestine than that of the succeeding, the impulse of gas on faecal masses, the weight of these masses, or of polypi, the higher position of a portion of bowel than of the part succeeding, the pressure of the diaphragm and intestinal walls, as the causes which produce and increase intus-susceptions.

An interesting and well-recorded case of intus-susception is communicated by FROMMANN in which recovery ensued after the separation and discharge of a volvulus consisting of at least thirty-two inches of small intestine. Improvement commenced immediately after the administration of enemata, quickly repeated, the last of which was retained. One hour after there was a copious discharge of gas and of pultaceous, faecal matter. After the discharge of the volvulus an elongated, resisting, scarcely moveable, very sensitive swelling, which had existed in the right lower abdominal region, vanished.

A case is recorded by CABARET in which the colon was invaginated and prolapsed through the anus for a distance of twelve inches, while at the same time a sound could be introduced a long way upwards between the margin of the anus and the prolapsed mucous membrane. After other attempts had failed, Cabaret succeeded by employing the proceeding recommended by Le Pelletier.

A case of ileus is recorded by BRUGNOLI, in which the obstruction seems to have been occasioned by a band of adhesion formed between the bladder and the lower part of the ileum. The contraction of the bladder, by stretching the intestine, brought its walls together, and so formed an obstacle to the onward passage of the contents.

A case is recorded by STREUBEL in which the small intestine,

about three inches above the cæcum, was so twisted upon its own axis as to obstruct the canal. The large intestine was shrunk to the size of the little finger. The patient was a new-born child; death ensued forty hours after birth. Greenish matter, like meconium, had been vomited.

LEARED, having found pepsin much less efficient than he had hoped from the favorable reports made of it, has examined its actual digestive power, and affirms that, instead of a fifteen-grain dose being adequate to digest a mutton chop, nineteen times that quantity would be requisite. The dose just mentioned can only be considered equivalent to five drachms of gastric juice.

KLOB records a case in which fibroid thickening of the submucous tissue of the stomach was found after death. The mucous coat was thinned, shiny, adherent to the subjacent layers; its glands had disappeared; it consisted chiefly of a dense connective tissue. The submucous coat was from two to three lines thick, tendinous, and milk-white, very dense and tough. The muscular coat was from three to four lines thick, stiff, traversed by whitish septa. The patient, a male, had suffered with bad digestion.

OPPOLZER enumerates the following conditions of the abdominal organs as causative of ascites, not taking into consideration hydræmia and the effect of cardiac and pulmonary disease: (1.) Chronic inflammations of the peritoneum, set up often by moveable tumours, as ovarian, &c. (2.) Thickening of the subserous peritoneal areolar tissue, in which the veins are compressed by the exudation between the layers of the mesentery, and the intestines drawn backwards towards the vertebral column, so that they cannot float up. Other results are icterus, from pressure on the ductus communis coledochus, obstinate constipation, from contraction of the rectum or shortening of the mesocolon, and wasting of the ovaries. (3.) Tuberculosis of the peritoneum. (4.) Cancer of peritoneum. (5.) Mechanical obstructions in the course of the portal vein. These may be very various, *e.g.* masses of retro-peritoneal cancer, enlarged lymphatic glands in the hilus of the liver, clots conveyed into the trunk of the portal vein, or secondary inflammation, occasioned by them or propagated from the vicinity. (6.) Morbid states of the liver itself, as granulating cirrhosis, red atrophy, excessive dilatation of the biliary ducts.

WEISSE, director of the Children's Hospital at St. Petersburg, maintains, after the confirmative experience of twenty years, that

raw, scraped beef, to the exclusion of all other medication, is a true specific in the destructive diarrhœa which affects weaned children.

BEAU, having obtained marked success in the treatment of puerperal peritonitis by means of full doses of quinine, has been encouraged to apply the same medication to idiopathic peritonitis. He has obtained such results as convince him of the superiority of this proceeding to the former practice of bleeding and mercurialization. The able reporter of Beau's practice relates his surprise at witnessing for the first time a genuine case of idiopathic peritonitis treated and cured by quinine, gr. x, 8vis horis, continued for about ten days, to the exclusion of all other medication except a blister to the most tender part of the abdomen, and an emetic at the outset, with a purgative enema.

LILJEBORN records a case of perforating ulcer in the duodenum which caused repeated hæmatemesis, at last proving fatal. An artery was found eroded by the ulcer, as well as the pancreatic duct. No symptoms were present during life except the hæmorrhage.

EASTON records a case of obstruction of the bowels, which continued five days and a half, and was accompanied by profuse stercoraceous vomiting, prostration, and intense abdominal pain, but which terminated favorably by copious alvine evacuations, after which all unfavorable symptoms disappeared. The disease set in with severe pain in the abdomen, accompanied by nausea and vomiting, the patient having been previously in perfect health. The abdomen became hard and tense, but was never tympanitic. An opiate enema, sulphate of magnesia, two tobacco enemata, and twelve doses of calcined magnesia and nitric acid, constituted the treatment employed. A small quantity of fæcal matter was passed after the first tobacco enema, the final clearing out took place some hours (probably about eight or ten) after the second. Easton ascribes the obstruction of the bowel to the occurrence of spasmodic contraction of its muscular coat, and on this view the tobacco was prescribed.

A very remarkable case is recorded by Cox, U. S., in which an intelligent girl, æt. 12, died in about three days, apparently from impaction of the small intestine with lumbrici. The symptoms were an unnatural coolness or coldness of all parts of the surface uncovered by clothing, and of the extremities, without any subjective feeling of cold, extreme thirst, a frequent, quick, and exceedingly small, feeble, thread-like pulse. She had little appetite for

food, which produced nausea or vomiting. After the administration of turpentine five lumbrici were vomited; after this the vomiting became continual. Although evidently sinking, she was buoyant and cheerful in spirits, and walked down one flight of stairs two days before her death. A tumour, of the size of an orange, extremely sensitive to pressure, was discovered the day before she died, but it vanished in a few hours. At the post-mortem the only morbid state of any consequence that was found was a mass of round worms, 365 in number, occupying the small intestines, except a few which were in the cæcum.

In some observations on pica, or dirt-eating of children, CORRIGAN records three cases, in two of which it came out that the child was in the habit of swallowing gravel, and in the third, clay and twine. The symptoms often resemble those that usher in tubercular meningitis, hydrocephalus, or mesenteric disease.

Case of perforating ulcer of the duodenum, recorded by WALLMANN. The subject was a soldier, who had long suffered from periodic gastric pain. One day he suddenly fell on the ground during a paroxysm; the symptoms for a short while were inconsiderable, but soon fatal peritonitis declared itself. The stomach was healthy; there were two ulcers in the duodenum, one of which, on the posterior wall of the gut, had made a small perforation.

GIRDWOOD records some cases illustrating the occurrence of diarrhœa and dysentery coetaneously with conception. In one patient diarrhœa set in, together with pregnancy, on eight successive occasions. In a second intractable dysenteric diarrhœa set in, and continued until abortion occurred at the fourth month. In a third, severe dysentery and vomiting, with burning in the throat and stomach, appeared soon after the cessation of the catamenia. Repeated leeching of the abdomen, over the tender caput cæci, was employed, and the symptoms gradually subsided. Delivery took place at the full period.

A case of ulceration of the duodenum, proving fatal by erosion of the pyloric artery, is recorded by RANKING. The symptoms were chiefly those of chronic functional dyspepsia, with loss of flesh and strength, until hæmorrhage set in, and caused fatal prostration. The patient was a male, æt. 50.

HESLOP contributes a paper on the cerebro-spinal symptomatology of worms. After detailing in abstract fifty cases, he describes as

follows the phenomena of a typical case of verminous disorder: "A man, with a pale face, but fair embonpoint, presents himself, complaining of dull headache, not limited to any particular region of the cranium, but perhaps more marked in the frontal region than elsewhere. This headache does not offer any marked exacerbations or remissions, but is almost constant, and sufficiently severe, without being excruciating, to render life, if not a burthen, at least unhappy. Giddiness is so severe that he often staggers about like one intoxicated, and when this symptom is present to a less degree there is still almost continuously a sense of confusion and insecurity, which renders walking a serious effort. The ears are affected with a constant buzzing and a great variety of noises, described sometimes as being like that produced by the boiling of a teakettle, sometimes like the letting-off of steam from a boiler, not rarely like the rumbling of thunder. The acuteness of the sense of hearing is at the same time unimpaired. His vision is dull. Fine webs seem to be constantly before the eyes, so that every object wears a hazy aspect; at other times dark spots, or brilliant flashes, obstruct vision.

Case of medullary cancer of the œsophagus, which ulcerated into the pericardium, producing pericarditis and death, recorded by FIRTH. The patient was a female, æt. 36; her illness extended over seven months. On admission, she could only swallow thin fluids, but after dilatation with œsophagus bougies, she was able to take finely minced solids. In spite of a liberal diet she did not improve; the use of the bougies had to be discontinued, on account of acute pain, and soon even swallowing became so distressing that beef-tea enemata were resorted to. At the post-mortem a massy, shining, milky growth was found, of annular form, commencing opposite the bifurcation of the trachea, and terminating four and a half inches below. At about the middle, on the left side, a round, ulcerated opening led into the upper part of the pericardial cavity. The stomach was healthy.

BERGERON, from observation of an epidemic of stomatitis ulcerosa in the French army, describes the disease as a specific, contagious malady, characterised by ulcers of various form and extent, which may develop themselves on all points of the buccal mucous membrane, but principally attack the gums and the inside of the cheeks, and are constantly attended by an abundant flow of saliva, most offensive breath, and more or less marked swelling of the sub-

maxillary glands. Direct experiment shows the disease to be contagious. The aggregation of soldiers the author assigns as the chief originating cause of the disease; moist heat is the most favorable meteorological condition for its development. The affection is quite distinct from diphtheritis; its ulcerations, the character of the false membranes (limited to the ulcers), its non-extension beyond the buccal cavity, and the absence of toxic phenomena, are positive points of difference. The treatment is by Potass. Chloras.

A case of stricture of the œsophagus in a female, æt. 19, is recorded by BATTY. The post-mortem showed an annular stricture, of cartilaginous hardness, just above the cardiac orifice of the stomach, with masses of soft, grumous, tubercular substance extending downwards behind the œsophagus from about the cricoid cartilage. A bougie was passed, which at first produced no remarkable effect, but in about two hours symptoms of collapse appeared, and emphysema soon followed, and became very extensive. Death ensued in four days.

STURGES records a case of intestinal obstruction, terminating favorably, by the use of opium, on the seventh day of the attack. The patient was a female, æt. 65. The obstruction appeared to be seated in the small intestines.

THORNHILL records a case of fatal dysentery, with a small aneurism of the abdominal aorta, in which, on autopsy, the spleen and the stomach were found in the usual site of the liver, and *vice versâ*.

CANTON records a case of digestive solution of the œsophagus, the stomach remaining in every respect healthy, and being full of soaked bread. Some small particles of food were found in the left pleura. Two openings were found in the œsophagus, nearly a quarter of an inch from the diaphragm, having thin, fringed margins. The mucous membrane corresponding to these openings was filmy and almost diffuent. The rest of the œsophagus was healthy. Miliary tubercles were scattered through the lungs, and enlarged, suppurating glands were found in the thorax. The trachea was lined by a very thin pellicle of lymph. Two hours after a meal the child, æt. 6 months, became insensible, and remained so till death, eight hours later.

A paper on the organic contractions of the rectum, resulting from syphilis, by BOVERO, is of some interest. He states the diagnosis from cancerous constriction, as determined by the age, the less amount of suppuration, the formation at first of plates and hard

knots attended with a fixed pricking pain. Antisymphilitic remedies are of course essential, as well as astringent injections and cauterizations, while incisions and bougies are employed to produce dilatation.

WADE gives some clinical illustrations of the diagnosis and treatment of ulcer of the stomach. After detailing the several symptoms which he considers to indicate the existence of this lesion, he emphasises the injunction to be guided in forming a conclusion by the presence of all, or the majority, rather than by the prominence or severity of any one, even though that should be the important one of hæmorrhage. His treatment consists in a milk diet, the quantity taken at one time being restricted to the amount that does not cause pain, together with pills of Argent. Nitr., Opii, āā gr. $\frac{1}{3}$; Extractii Bellad., gr. $\frac{1}{8}$; ter die. The patient must return very cautiously to ordinary diet.

HABERSHON records a case of lateral transposition of all the viscera, followed by some remarks on various abnormal positions that may be assumed by the several parts of the gastro-intestinal canal.

A case of inflammation of the vena portæ is recorded by STEINBERG, occurring in the Copenhagen hospital. The patient, a male, *æt.* 33, was ill for twenty-seven days, with symptoms at first closely resembling those of the typhus prevalent the year before, but subsequently leading to the diagnosis of pyæmia. At the autopsy the liver was found much enlarged, and all the ramifications of the portal vein distended with pus.

HABERSHON has published a paper on pain as a sign of disease of the stomach, in which he advances the following propositions. (1.) Acute inflammation and disease of the stomach may be entirely free from pain if the mucous membrane only be affected. Some cases of poisoning by corrosive liquids are cited, in which there was no pain, or not for some length of time. (2.) Organic disease of the mucous membrane, as cancer, may be comparatively free from pain. (3.) Disease extending to the muscular or peritoneal coats produces generally severe pain. (4.) Over-distension of the stomach produces severe pain. (5.) Disease of the peritoneum causes severe pain. (6.) As Osborne states, the position of greatest ease may serve to show the seat of ulceration, as being probably opposite. (7.) In disease of the lesser curvature, near the pyloric orifice, pain is sometimes experienced by the patient as soon

as the food enters the stomach, and in some cases conveys the idea of disease at the œsophageal orifice. (8, 9.) In some peritoneal diseases of the stomach there is no pain, in others it is very severe. (11, 12, 13.) Pain may be absent in consequence of destruction of the pneumogastric nerves. (14.) Pain at the epigastrium, simulating disease of the stomach, often arises from spinal disease. (15.) Severe pain at the epigastrium is frequently present in any state which leads to over-distension of the right cavities of the heart. (16.) In abdominal aneurism (aortic) pain of a most intense kind is sometimes observed.

DONALDSON, Madras Army, advocates powerfully the treatment of dysentery (Indian) by repeated doses of ipecacuanha, with general and local bleeding. He condemns the treatment by calomel as most injurious. The paper contains many valuable remarks.

CLARK describes mucous disease of the colon as an affection of frequent occurrence. He divides it into three stages: in the first, the characteristic discharge from the bowel consists of flakes or masses of more or less inspissated mucus; in the second, of tubular casts of the gut; in the third, of membranous shreds of lymph, mixed with blood and pus. The circulation in this disease is feeble, giving rise to local capillary congestions; the nervous centres are very excitable; the blood is thin, deficient in fibrin, and red discs; the skin dry and acting imperfectly, and all the mucous surfaces excrete an excessive quantity of vitiated mucus.

WELLS contributes a paper entitled 'Acids or Alkalies in Stomach Disorders?' He states, that pain situated at the cardiac end of the stomach is best relieved by alkalies, while pain at the pyloric end, depending on derangement of the liver, is most amenable to acids.

The bark of the fresh root of the *Sambucus nigra*, squeezed to yield a juice, is an excellent purgative in dropsy; it does not cause pain, and ʒss will produce twenty to thirty stools. If boiled, the juice becomes diuretic instead of purgative.

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- Fuller.**—On certain Points connected with the Treatment of Renal Anasarca. *Med. Times and Gaz.*, Dec. 10th, 1859.
- Harris.**—Report of a Case of M. Brightii, with Amyloid Degeneration of the Malpighian Bodies. *Lancet*, Dec. 17th and 24th, 1859.
- Moissenet.**—On Puncture of Hydatid Cysts of the Liver with the Capillary Trocar. *Brit. and For. Med.-Chir. Rev.*, July, 1859, p. 264.

A case of complete disorganization of both supra-renal capsules, without discoloration of the skin, is recorded by DAVEY.

A remarkable case is recorded by KINN, in which a copious ascitic accumulation was removed in twenty-four hours by a serous flow from the nipples. This came on spontaneously. The ascites had succeeded a typhoid fever, and paracentesis had been once performed.

JACKSON finds oxide of zinc, in five- to seven-grain doses, very efficient in profuse sweating, whether from phthisis, rheumatism, or intermittent fever.

HEWSON relates that among 292 boys in the Philadelphia House of Refuge, no less than 78 had nocturnal incontinence of urine. Of these, 63 remained continuously under observation, 29 being whites, and 34 negroes; and as the total number of whites and blacks was respectively 201 and 91, the affection was more than twice as prevalent among the blacks than the whites. Bromide of potassium was first tried, and cured 9. Tinct. Ferri Muriat. and cantharides were both ineffectual. Belladonna, aided by aperients, the cold douches, dry supper, and some other precautions, cured the rest.

HAMMOND reports the result of some experiments made with reference to the influence of squills, juniper, digitalis, and colchicum, over the quantity of the urine, its specific gravity, and the amount of its solid organic and inorganic constituents. They were all performed upon healthy adult males. The following table shows the averages of each series of investigations.

	Quantity of urine in cub. c.	Specific Gravity.	Total Solids.	Inorganic Solids.	Organic Solids.
Normal standard . . .	1474.5	1024.30	75.31	30.17	45.14
Digitalis . . .	1822.8	1015.87	67.00	31.54	35.43
Normal standard . . .	1237.5	1022.50	61.23	23.12	38.11
Juniper . . .	1763.2	1016.28	61.50	25.03	36.42
Normal standard . . .	1358.0	1023.51	69.35	27.22	42.13
Squill . . .	1533.5	1020.20	60.15	30.60	29.55
Normal standard . . .	1280.0	1025.08	63.12	29.83	33.29
Colchicum . . .	1556.8	1023.58	77.28	35.23	42.04

From the foregoing investigations he deduces that neither digitalis, juniper, nor squills, increase the total amount of solid matter eliminated by the kidneys, and that the organic matter is considerably reduced through their influence. Although they do increase the amount of inorganic matter removed through the urine, yet, as it is the organic matter which is generally considered as contaminating the blood in disease, it is evident they exert no effect whatever in depurating this fluid, but, on the contrary, are positively injurious. Colchicum, on the other hand, acts in a materially different manner, eliminating an increased quantity of organic and inorganic matter.

DICKINSON maintains that "there are two essentially distinct conditions of kidney giving rise to what is called Bright's disease, and these may be distinguished from each other by the presence or absence of external granulations." In one, the non-granular, the disease is essentially tubular, and is marked by alterations of the epithelium. In the other, the granular, the disease is inter-tubular, and is marked by thickening and adhesion of the capsule, and the extension of fibrous processes from it into the kidney; it has two periods, one of enlargement, that which is commonly seen; one of diminution, which is rare. Of 357 cases, 250 were granular, 107 smooth. Of the latter, the average age was twenty-eight years; of the former, fifty; "proving that the one disease is not a sequel or stage of the other." In 17 cases of granular disease the gouty or rheumatic diathesis existed; in 1 only of the smooth variety was there any trace of such having been present.

GARNIER, from his own experience, as well as that recorded by others, is led to recommend the administration of tannin, in doses of half a drachm to a drachm, daily, in cases of anasarca developed

passively in connexion with albuminuria. "Its curative action is manifested by abundant urine, gradually resuming its physiological characters, by perspiration, early alvine evacuations, return of appetite, &c." Its primary action seems to be on the fluids of the economy, "the albuminous principles of which it coagulates and renders plastic," while its secondary action on the solids appears to be tonic and astringent.

SCOTT records the results of experiments made on dogs whose gall-bladder was made to open externally by a fistulous orifice after the common duct had been tied. After the normal amount of bile secreted in twenty-four hours had been determined for two days, a large dose of calomel was given, and then the average amount of bile secreted during the two succeeding days was ascertained. The result in all the four experiments was the same, viz., that there was a diminution in the amount of fluid bile and bile-solids secreted after the administration of large doses of calomel.

JACKSON gives some useful experience respecting the management of abscesses of the liver. He warns earnestly against continuing a mercurial course after suppuration has taken place.

HERARD relates two cases of rapidly fatal jaundice, death occurring in one on the sixth and in the other on the eighth day. The autopsy in both showed local jaundice of the liver in scattered spots; the hepatic cells were normal. There was bloody extravasation into the cavity, and in the mucous membrane of the stomach and intestines. No other important alteration, except considerable pulmonary congestion. The disease set in, during oppressive, hot weather, with headache, vomiting (subsequently bloody), and deep depression. Jaundice occurred on the third day. The liver was not enlarged. The cerebral functions were unimpaired.

A case of chronic diuresis, in which the absence of sugar was positively determined, is recorded by WILLSHIRE. The urine amounted to fifteen pints in the twenty-four hours, very pale, sp. gr. 1002, quite clear. There was great thirst, bad appetite, dry skin. Under treatment by quinine, Tinct. Ferri Muriat., and opium, the urine was reduced to six and a half pints daily. Two cases of Addison's disease are reported in the same number.

ALEXANDER records five cases of suppression of urine, of which two proved fatal. The last was specially remarkable, as for four weeks not one ounce of water was passed by the patient, a boy, æt. 10. It did not appear that any deception was practised. No

urinary smell was observable either in the fæces or perspiration, which was little, if at all, increased. The secretion gradually returned *sponte sua*.

BYERLEY recommends one of our indigenous plants, the *Erodium cicutarium*, or Stork's-bill, common in sandy situations, as an efficient diuretic.

GOODWIN records the case of a male, æt. 60, who died under his care with cancerous formation in the liver, kidneys, and bladder, and with suppurating tubercular deposit and small cavities in the left lung. "The urine contained pus-globules, red and white corpuscles of blood in large quantities, squamous epithelium, with large, granular nuclei and nucleoli, large, round epithelium, containing many resplendent granules, probably from the fundus of the bladder, and caudate and round cells, with resplendent granules." The disease seems to have run its course in about three months.

The value of albuminuria as a symptom of kidney disease.—As the result of his hospital experience, PARKES concludes that the existence of *permanent* albuminuria indicated kidney disease in thirty-two out of thirty-six cases; and if heart disease be excluded, it indicated kidney disease invariably. *Temporary* albuminuria was observed in six out of ten cases of acute pneumonia, in all of three cases of acute morbus Brightii, in four out of nineteen cases of acute rheumatism, in one out of eight cases of subacute, in five out of nineteen cases of typhoid fever.

In a clinical lecture on a case of renal dropsy, attended with a copious, purulent deposit, not containing any tube-casts, BASHAM concludes with the following remarks: "We may, therefore, consider that when the symptoms of renal dropsy are associated with a purulent, non-tubular sediment in the urine, in proportion to the amount of that purulent sediment will be the probability that the interstitial structures of the kidney are the source of the pus; and that as this condition is consequent upon the destruction of the renal parenchyma, the prognosis must necessarily be unfavorable."

In a paper on paraplegia in relation to renal disease, HINDS advances the opinion that the paralysis is produced by the extension of the renal disease to the lumbar plexus.

KENNEDY publishes two cases of albuminuria treated by mercury, with some interesting remarks. He lays stress on the fact that functional is frequently united to organic disease of the kidney, and states that he has known instances in which albumen was present

in the urine for months, and subsequently entirely disappeared, the patient remaining in excellent health.

LONG has found Tinct. Aconiti effectual in preventing the febrile attacks produced by catheterism.

A French author recommends as the result of his experience in Bright's disease—(1.) A generous diet, including wine. (2.) Exercise daily in the open air. (3.) General sponging with cold water containing one tenth to one fourth of muriatic acid. (4.) Protiodide of iron for fifteen days every month, in the intervals arsenious acid. (5.) Cod-liver oil, if the nutritive power is failing. (6.) Salines of nitrate and chlorate of potash, with tartaric acid in case of thirst; if there be no thirst, gallic acid.

A case of diabetes is recorded, which supervened in a boy, sixteen years old, after a blow on the occiput. Gradual recovery took place under an animal diet, with medication by Bicarb. Sodæ (seven and a half drachms daily).

RÖSER publishes several cases to prove the highly beneficial effect of Potass. Iodid. in the dropsy attendant on morbus Brightii. The usual dose is half a drachm to a drachm in the twenty-four hours. In some cases the urine ceased to be albuminous.

BOETTGER proposes, as an improved test for sugar in the urine, to boil the urine, to which an equal volume of strong carbonate of soda solution has been added, with a small quantity of tris-nitrate of bismuth. If sugar is present, the bismuth becomes darkened.

In a clinical lecture on a fatal case of scarlatinal dropsy, BASHAM insists on the identity of this disease with acute morbus Brightii. He points out that the characters of urinary sediment are similar, as well as the condition of the kidneys ascertained by post-mortem examination.

Five cases of waxy liver observed by FOURNIER occurred in subjects all of whom had abscesses connected with diseased bone. Two of the patients were scrofulous. In several there existed also waxy degeneration of the kidneys and albuminuria, or fibrous induration of the spleen. In one case only was there pulmonary tuberculosis.

PLEISCHL records three cases of acute atrophy of the liver occurring in Oppolzer's clinic. In one the ductus communis choledochus was blocked up by a gall-stone, the duct distended, the hepatic cells extensively destroyed, leaving much fat and molecular detritus. The cardiac muscular fibres and the renal tubules showed fatty

degeneration. In two other cases death was preceded by gastric disorder, vomiting of blood, and cerebral symptoms.

KÜHNE has studied carefully the pathology of icterus. He does not adopt the view of Frerichs and Stadeler, that the biliary acids are changed in the blood into bile-pigment, but shows that blood-pigment is changed into bile-pigment under the influence of the biliary acids. By adopting the method of Hoppe, he was able to determine constantly the presence of the biliary acids in the urine of persons suffering under icterus, as well as in that of dogs whose biliary ducts had been tied. When dog's bile, or solution of the biliary acids was injected into a vein, bile-pigment and the salts were detected in the urine. Even in large quantities of healthy urine no biliary acids could be found.

ROSENSTEIN has studied the ætiology of parenchymatous nephritis in 162 individuals, of whom 85 were male, 77 female. The majority of cases occurred between the twentieth and fiftieth years of life, viz., 100 out of the whole number. The most frequent cause of the disease was found to be *intermittent fever*—it was noted in 23 per cent. In some of the cases dropsy set in as soon as the febrile paroxysms ceased, and preceded the occurrence of albuminuria. This dropsy and the formation of splenic tumour, by increasing the watery constituent of the blood, gave a further impulse to the renal disease.

BERTULUS states, as the result of his experience of hepatitis, that it is principally induced by malaria and alcoholic or other irritating ingesta. Persons who live temperately are much less liable to the disease than those who cannot forbear stimulants. Alkaline waters, as those of Vichy, he thinks, are the best remedial means.

A case is recorded by RIBOLI, in which the pancreas was found, after death, destroyed by suppuration. The patient was a female, æt. 54, who had suffered with symptoms of the disease more than twenty years. These consisted in continuous fever, with evening exacerbation, vomiting of salivary fluid, deep-seated pain, subicteric tingeing of the skin, stools whitish, non-offensive, saliva-like, sometimes mucous, in salivation, heartburn, burning thirst, and emaciation.

BEHREND records a severe case of irritable bladder, in which, after the failure of other remedies, extract of belladonna, administered in increasing doses till the specific symptoms were fully developed, procured an almost complete and a permanent cure.

The following is an abstract of the chief peculiarities observed in two cases of general enlargement of the lymphatic glands, occurring in the practice of WUNDERLICH. In the first case, a male, the lungs contained tubercles; in the second, a female, they did not. "The most remarkable circumstance in both of the cases was the enormous enlargement of such great numbers of lymphatic glands. To such an extent had they increased, that they not only disfigured the form of the body, but from want of space to develop in, became themselves squeezed and flattened into various shapes. The change which the glands had undergone was in nowise of a carcinomatous or of a tuberculous nature, but consisted in an enormous hypertrophy produced with great rapidity, a portion of the nutritive material being deposited in an amorphous condition in the hypertrophied gland. The increase of the peculiar glandular parenchyma was less in the second than in the first case, there being in the former a good deal of coagulated fibrine, and infiltration of incompletely organized matter. The change observed in the spleen is, as far as the author is aware, peculiar, and hitherto undescribed. To the unaided eye, it most resembled innumerable points of suppuration, save that it was nowhere soft and fluidiform, but, on the contrary, very firm, and almost of cartilaginous hardness. Exactly the same change, but in far less numerous spots, was observed in the liver. The resemblance of this infiltration with the condition of the swollen lymphatic glands leads to the inference of both being due to a common constitutional affection, and it might be indicated as spleen or liver scrofula. The causes of the affection were discoverable in neither case. The glandular swellings were not secondary to a peripheric affection. They might be regarded, in fact, as the expression of a constitutional disease. The general condition was one of extreme anæmia; leucæmia was suspected, but repeated microscopic examination of the blood set this view aside."

WARD records a number of cases of jaundice arising from "different functional and structural derangements of the liver, which may be referred to with advantage by any one studying the subject.

WILKS has applied the term *anæmia lymphatica* to a morbid condition of not very rare occurrence, which has hitherto been unnamed. "The essential features of the disease are the most extreme pallor or anæmia, enlargement of one or more of the various groups of lymphatic glands, either internal or external to the body, and a peculiar morbid condition, with occasional enlargement, of the

spleen; the last depending upon the deposition of an opaque, white, lardaceous material, in isolated masses, or diffused throughout the substance of the organ, and resembling bacon-rind." There is no excess of white corpuscles in this disease, but a deficiency of the red. The structure of the enlarged gland is fibro-nucleated. The disease may occur at all periods of life, may extend over a period of two or more years, and proves fatal by slow prostration. Wilks has given an account of the affection in 'Guy's Hospital Reports,' vol. ii, series 3.

In some remarks on the hygienic treatment of diabetes, BOUCHARDAT states that the replacing of the feculent food by alcoholic drinks is as important as the abstinence from feculent foods. He prefers the red Burgundy and Bordeaux wines, but all red wines which are more astringent than sweet do equally well. In the twenty-four hours he gives a litre (one pint and three quarters) or more. Bordeaux wine allays the thirst of the diabetic better than any other liquid.

Case of tuberiform cancer of liver, combined with a large aneurism of abdominal aorta. (*Vide* 'Glasgow Med. Journ.', Oct. 1859.)

In a paper on parenchymatous nephritis, ROSENSTEIN gives the results of his observations on the urine. The average amount of urea was 7.26 grammes per day, contrasting with that of healthy individuals, 25.16 grammes. The amount of chloride of sodium fell very rapidly, on the coming-on of fever, from 17.2 grammes to 1.25 gramme; and towards the end of the disease its maximum amounted to 15.3 grammes, its minimum to 0.76 gramme. The quantity of albumen varied between 18.9 and 0.50 grammes per day; it was sometimes absent, even during dropsy, for weeks, once for months. About the middle of the course of the chronic cases decrease of the amount of chloride of sodium corresponded to increase of the albumen. The amount of urea showed no constant ratio to that of the albumen and chloride of sodium, and certainly no inverse ratio to the former.

TRAUBE states, that in sixty-one cases of insufficiency of the cardiac valves, and similarly operating affections of the circulating and respiratory organs, renal disease leading to granular atrophy occurred only once. After noticing Bamberger's contrary opinion, he concludes that the renal disease, consecutive on valvular insufficiency, is a disease *sui generis*, which only arises when the disturbances of the circulation find no equalisation, or cannot retain it. In

heart disease uræmic poisoning does not occur, and the results of microscopic examination of the kidneys (post-mortem) is quite distinctive. The characters of the urine, also, are different in the secondary renal affection, and in the primary diffuse nephritis and amyloid degeneration before shrinking has taken place.

THUDICHUM mentions, in a paper on the pathology and treatment of gall-stones, that he had discovered in the pulpy central part of one a number of cylindrical, thread-like fibres, many of which were branched or divided dichotomously. These appear from the figures to have been covered over with crystals of cholesterine, and the author states his opinion that they were casts of the biliary ducts. He considers the etiology of biliary calculi, and offers various speculations as to the possible or probable circumstances which may produce them. With respect to treatment, after noticing the usual means employed, he suggests the feasibility and desirableness of establishing, in appropriate cases, a biliary fistula, and introducing an instrument to crush the calculi, and so get rid of them.

BURDEL affirms the existence of a true, though temporary, diabetes in marsh-fevers. It coexists with the fever, and disappears along with it. The more violent the paroxysm, and the more intense the shivering, the greater is the amount of sugar. When the paroxysms are slighter, and the cachexia is established, the amount of sugar is less.

MOISSENET having himself lost a patient in peritonitis resulting from a palliative puncture with a capillary trocar of a large hydatid cyst in the liver, examines minutely the different methods which have been employed to evacuate the liquid contained in the sac and to destroy the hydatids. He gives the two following sets of conclusions: "A. (1.) That the hydatid liquid, whether limpid or puriform, when poured into the peritoneum, whether as the result of accident or of an operation, induces acute or chronic inflammation, which is almost always, if not invariably, fatal. (2.) That capillary puncture, though commonly not injurious, may induce effusion into the peritoneum of hydatid fluids, when there are no adhesions between the cystic and abdominal parietes; and that this effusion has taken place when the puncture has been made for exploration or palliation only; that is, when the cyst has been imperfectly emptied. (3.) That the puncture of the hydatid cysts, whether made with a capillary or with an ordinary sized trocar, may prove fatal by inducing inflammation of the cyst itself. B. (1.) That capil-

lary puncture of an hydatid tumour, made even without the existence of adhesions, may be curative when followed by as complete an evacuation of the liquid as possible. (2.) That this result may be obtained by a single puncture, or by two or three successive punctures. (3.) That the treatment commenced by capillary puncture must sometimes be completed by another method, as in the case of Rees, in which a larger trocar was used at the third puncture, and a gum-elastic sound left in the orifice."

CUTANEOUS SYSTEM.

Moore.—On the "Sapo Laricis" in Cutaneous Diseases. Dublin Hosp. Gaz., March 15th, 1859.

Moore.—On the Nature and Treatment of some of the more Ordinary Diseases of the Skin. *Ib.*, April 15th, 1859.

Valerius.—Traitement du Lupus. [Treatment of Lupus.] *Annuaire de Thérapeut.*, 1859, p. 252.

Kletzinsky.—Sur l'emploi Dermato-Thérapeutique de l'Acide Hydrochlorique. [On the use of Hydrochloric Acid in Skin Diseases.] *Annuaire par Noiro*t, 1859, p. 109.

Poor.—Lupus Erythematoses. *Schmidt's Jahrb.*, vol. 102, p. 28, 1859.

Schönheit und Malmsten.—Pemphigus Chronicus, Cases of. *Ib.*, pp. 29, 30, 1859.

Barensprung.—Ueber Area Celsi. [On Porrigo Decalvans.] *Ib.*, p. 182.

Harvey.—Case of Stearrhœa Nigricans. *Dublin Med. Jour.*, Feb., 1859, p. 233.

Flechsigs.—Bericht über die neuern Leistungen auf dem Gebiete der Balneologie. [Report on the more recent Contributions to the Science of Balneology.] *Schmidt Jahrb.*, vol. 102, pp. 323—363; vol. 103, pp. 73—92; 1859.

Lowe.—On the True Nature of Parasitic Diseases. *Lancet*, Aug. 13th, 1859.

Bourguignon.—Glycerine Ointment for the Itch (Formula). *Lancet*, Aug. 27th, 1859.

Durrant.—Treatment of Boils. *Brit. Med. Jour.*, Sept. 3d, 1859.

Ludkiewick.—Heilung eine hautnächigen Flechte durch Wein Dämpfe. [Cure of an Obstinate Eruption by the Vapour of Heated Wine.] *Schmidt's Jahrb.*, vol. 103, p. 187, 1859.

Edwards.—Human Horns. *Edin. Med. Jour.*, Nov., 1859, p. 420.

Smith.—Some Remarks on the Action of the Skin in the Production and Treatment of Disease. *Ib.*, Dec., 1859, p. 512.

Hutchinson.—Clinical Report on Favus. *Med. Times and Gaz.*, Dec. 3d, 10th, 31st, 1859.

Scoutetten.—Preservative Treatment against Consecutive Effects of Measles and Scarlatina. *Dublin Hosp. Gaz.*, Dec. 15th, 1859.

— On the Influence of Baths on the Excretions. *Brit. and For. Med.-Chir. Rev.*, p. 135, Jan., 1859.

Thomson.—On the External Use of Medicines. Edin. Med. Jour., July, 1859, p. 41.

Gull.—On Factitious Urticaria. Guy's Hosp. Reports, vol. v, 1859, pp. 316—318.

Barensprung.—Ueber Prurigo. [On Prurigo.] Schmidt's Jahrbuch., 1859, vol. 102, p. 180.

Cerate of opium (Opⁱⁱ, ʒss, ad Cerate simpl., ʒij), highly recommended in carbuncle.

Sapo Laricis is found by MOORE very efficacious in the local treatment of psoriasis, pityriasis, chronic herpetic and eczematous affections; it may be applied once or twice daily, and allowed to dry. The ingredients of the soap are—wheaten bran, ʒiv; white curd soap, ʒxxiv; pure glycerine, ʒiij; extract of larch-bark, ʒiv—ʒj; rose-water, ʒxij.

THOMSON shows, by a number of facts which he has collected, that the male has the chief influence over the propagation of the texture, colour, and peculiarities of the skin and hair.

MOORE details several cases of skin disease which may be referred to with advantage. He seems to shun arsenic, and to employ chiefly mild alteratives, demulcent and alkaline applications, and Extr. Laricis internally and externally.

KLETZINSKY recommends the use of hydrochloric acid as a powerful means of increasing the cutaneous circulation and the excretion of carbonic acid by the skin. It is very useful in acne and chilblains. The acid employed should be as pure as possible, and as strong as can be borne without causing vesication. After it has been in contact with the skin from fifteen to sixty seconds, it is to be washed off and soap applied. Glycerine is the best diluent.

Several cases of lepra, under WILLSHIRE's care, are noticed in the 'Lancet,' March 12th, 1859, in which a material part of the treatment seems to have been abstinence from meat and fermented liquids, with a diet including plenty of watercresses and sometimes lemon-juice.

Two cases of chronic pemphigus are related, one by SCHÖNHEIT, the other by MALMSTEN. The first ended in recovery after three years' duration, the second ended fatally with pneumonia and diarrhoea. Bran and sulphur baths were beneficial in the first case; arsenic failed, although the eruption was complicated with chronic intermittent fever.

A case of *stearrhœa nigricans* is recorded by HARVEY, in which

both lower eyelids were affected. Under a general tonic plan of treatment the disorder ceased. The menstrual function was normal.

In a paper on the external use of medicines, THOMSON asserts the great efficacy of narcotic and other drugs rubbed into the skin, and observes, that the effect produced is greater and more rapid when they are applied to the epigastrium than to other parts of the cutaneous surface. In delirium tremens he has adopted for many years endermic medication by opium, in preference to its internal use. He confirms Deschamp's observation, that iodide of potassium can be detected in the urine after friction of the skin with a soap or ointment containing it.

A very full and complete report on balneology is contained in 'Schmidt's Jahrbucher,' p. 323, vol. 102, and pp. 73—92, vol. 103.

JASER's itch-ointment: R. Flowers of sulphur, ʒss; sulphate of zinc, ʒiiss; powdered root of white hellebore, ʒj; soft soap, ʒxiiij; hog's lard, ʒij; essence of caraway, ʒss. M. A soap bath is always to be premised, and is "the most essential condition of the treatment."

DURRANT advises the following treatment for boils: Extr. Col. co., Pil. Hyd., Extr. Acet. Colch., *alt. noct.*, with a warm aperient, if necessary, the following morning. During the day, Pot. Acet., with small doses of Tr. Colch. and Spt. Ammon. co. On the first appearance of a fresh boil, it is to be painted with a strong solution of Arg. Nitr. (ʒij ad ʒi). If the boil be already formed and indolent, the nitrate is to be used, and poultices.

LUDKIEWICK (himself the patient) relates the cure of an obstinate skin eruption, designated as *herpes squamos. humid.*, by the use of vinous-vapour baths, after all sorts of treatment had failed. The eruption he attributes to the spurting of a drop of puriform fluid into his right eye during the autopsy of a patient dead from glanders.

A case of acute purpura treated by venesection, alkalies, muriatic acid, and lemon-juice, is recorded by ALDERSON. The case terminated favorably in about six weeks. There was a good deal of rheumatic pain. The venesection appeared to be decidedly beneficial.

DEVERGIE speaks well of the effect of *chloriodide of mercury* in acne rosacea and in the other forms of acne.

GRAND-CLEMENT recommends the juice of *Chelidonium majus* in itching eruptions. The juice of the fresh plant may be kept mingled with equal parts of glycerine.

SMITH makes some remarks on the action of the skin in the production and treatment of disease. From his own experi-

ments he is satisfied that the skin is not and cannot act vicariously to the lungs.

HUTCHINSON contributes a clinical report on favus. After giving a total of forty-four cases observed by himself or others, he proceeds to remark upon its nomenclature, pathology, results, inveteracy, age, sex, and social condition, in respect of comparative liability to favus; the question as to the occurrence of favus in connection with debility or with any marked form of general cachexia; its connection with scrofula; its hereditary transmission, contagiousness, diagnosis, and treatment. The following is his summary of conclusions: (1.) That favus is a disease wholly depending on the implantation of a fungus. (2.) That it is contagious, and, in fact, spreads solely by contagion; but that its fungus being difficult of transplantation, it is but rarely communicated. (3.) That the conditions which favour its communication are, neglect of personal cleanliness, the existence of tinea tonsurans, and any irritation, such as the rough use of a comb, &c., which approaches to the performance of inoculation. (4.) That the young only are liable to its outbreak, but that it may be produced by intentional inoculation in adults. (5.) That the fungus develops itself chiefly in the hair-follicles. (6.) That its crusts consist almost solely of fungus-elements, and that thus it is easily diagnosed by the microscope. (7.) That the state of the patient's general health has little or nothing to do with favouring its outbreak. (8.) That it has no connection whatever with struma. (9.) That it usually attacks children between the ages of one and twelve, and that when once well established in the scalp it is rarely got rid of before adult age. (10.) That if it continues long unarrested, it destroys the hairs and their follicles. (11.) That it is a disease never seen among the better (*i. e.* more cleanly) classes. (12.) That it is of infrequent occurrence, and that it appears to occur with almost equal rarity in proportion to population in London, Edinburgh, Dublin, and Paris. (13.) That when it occurs on the naked integument it is easily curable, but when on the scalp it is most intractable; the difference probably being that in the latter position its spores spread deeply into the long hair-follicles, where they escape the influence of parasitidal remedies. (14.) That the only available treatment is by the persevering employment of one or other of the parasitidal drugs—sulphur, creosote, or mercury, the action of which is greatly facilitated by epilation of the parts.

SCOUTETTEN praises the preservative effects of frictions with oil, alternated with baths, against morbid sequelæ of scarlatina and measles. It is rare that more than four frictions and two baths are required.

GULL points out the fact, that in persons whose skin is very irritable, slight friction produces phenomena similar to those of urticaria. This depends, he believes, on contraction of the muscular tissue of the skin.

BARENSPRUNG considers prurigo as a dermatosis rather than as a neuralgia, and locates the morbid action in the papillary bodies of the skin. The latter, he believes, minister to the sense of touch; the nerves alone either at their extremity or in their course to common sensation. Hyperæsthesia of the nerves gives rise to neuralgia, hyperæsthesia of the papillary bodies to itching or burning. In support of this view, he refers to cutaneous eruptions, the deeper-seated of which, as furuncles, never occasion itching, but only pain; while the more superficial are attended with severe itching. The author specially recommends baths containing Hyd. Bichlorid. (two drachms to a bath), which proved speedily curative in a very severe case of four years' duration, in which a variety of other means had been employed without success. Sulphur baths and sulphur ointment, tar ointments, and huile de cade, diluted with two parts of fat, have proved also more or less useful.

SUBJECTS OF GENERAL INTEREST.

Mercer.—Medical Notes from the Continent; or, Sketches of the Universities, Hospitals, Lunatic Asylums, and Mineral Baths of Holland, Belgium, Germany, and Austria, Bavaria, Wurzburg. *Edin. Med. Jour.*, Jan., 1859, p. 595.

——— On Foreign Substances in various parts of the Body. *Ib.*, Feb., 1859, p. 769.

Chavasse.—Case of Poisoning by drinking water from a Leaden Cistern. *Brit. Med. Jour.*, April 23d, 1859.

Nunn.—On Idiosyncrasies. *Ib.*, June 11th, 1859.

Webster.—The Influence of Weather on Disease and on the Human Frame. *Lancet*, June 11th, 1859.

Thompson.—Observations on the Medical Administration of Ozonized Oils. *Med.-Chir. Trans.*, 1859, vol. xlii, p. 349.

Beddoe.—A Comparison of the Mortality from different Causes in Australia and England. *Edin. Med. Jour.*, Aug., 1859, p. 101.

Cleland.—On the Use of Saccharated Lime in Medicine. *Ib.*, p. 113.

- Macario.**—Terpentindampfbäder gegen Gicht, Rheumatismus, Neuralgien und Chron. Katarrhe. [Turpentine-vapour Baths in Gout, Rheumatism, Neuralgia, and Chronic Catarrh.] Schmidt's Jahrb., 1859, vol. 103, p. 26.
- Fountain.**—On the Chlorate of Potash. Med. Times and Gaz., Aug. 27th, 1859.
- Lehwess.**—On Destruction of Animal Poisons by Disinfectants. Canst. Jahrb., 1859, vol. ii, p. 130.
- Bacon.**—On Elimination of Lead from the System. Med. Times and Gaz., Sept. 17th, 1859.
- Nevins.**—The Internal Employment of Medicines in Vapour. Brit. Med. Jour., Sept. 24th, 1859.
- Jackson.**—On Cold Affusion in Narcotic poisoning. Med. Times and Gaz., Oct. 8th, 1859.
- Druitt.**—Houses in relation to Health. (Lecture.) Ib.
- Gallwey.**—On Two Cases of unusual Discharge of Carbonaceous Matter from the Nares and Intestines. Lancet, Oct. 15th, 1859.
- Coote.**—Cancer of the Stomach associated with Tubercular Disease of the Lungs. Medical Times and Gaz., Oct. 15th, 1859.
- Garrod.**—The Specific Chemical and Microscopical Phenomena of Gouty Inflammation. Ib., p. 393.
- Schroeder van der Kolk.**—Einige untersuchungen zum Beweis dass Entzündung nur von dem Arteriellen system ausgeht. [Researches proving that Inflammation has its Starting-point in the Arterial System alone.] Schmidt's Jahrb., 1859, vol. 104, p. 101.
- Samuel.**—Entzündung durch Nervenreiz. [Inflammation produced by Nervous Irritation.] Ib., p. 102.
- Bernard.**—Ueber das Fieber. [On Fever.] Ib., p. 103.
- Hoppe.**—Die Arznei wirkungen des Tartarus stibiatus an den irritabeln Gebilden, und an der Nervensubstanz. [The Action of Tartar Emetic on Contractile Tissues, and on the Nervous.] Ib., p. 161.
- Montegazza.**—Sulle virtù igieniche e Medicinali della Coca, e sugli alimenti nervosi in general. [On the Hygienic and Medicinal Virtues of Coca, and on Nervous Foods in general.] Ib., pp. 348—357.
- Birch.**—On Oxygen as a Therapeutical Agent. Brit. Med. Jour., Dec. 24th and 31st, 1859.

An instructive group of instances of foreign bodies lodging in various parts of the body is afforded by a discussion which took place at the Medico-Chirurgical Society of Edinburgh, with relation to a case in which a needle was extracted from the pharynx after penetrating the neck.

THOMPSON has made trial of ozonized oils in phthisis, the oils being ozonized by exposure for a considerable time to the direct rays of the sun, after previous saturation with oxygen gas. Out of fourteen cases there were only two in which the frequency of the pulse was not reduced; in the majority this effect was very marked, and this, too, independent of the particular kind of oil which was employed.

BEDDOES contributes a paper entitled 'A Comparison of the Mortality from different Causes in Australia and America.' The following is the summary which he supplies himself, but the whole communication is replete with facts which scarcely admit of condensation. The principal features of the medical geography of Victoria may now be summed up shortly as follows: "(1.) Excess of violent deaths. (2.) Excess of deaths from diseases of the bowels (alvine flux) and of the liver. (3.) Excess of diseases of the heart. (4.) Excess of some affections of the nervous system. (5.) Small proportion of deaths from tubercular and pulmonary diseases and from croup. (6.) Small proportion of deaths from the exanthemata and from hooping-cough. (7.) Absence of malarial fever. (8.) Gradual decrease of mortality from dysentery, typhus, measles, &c." The death-rate of Victoria in the year 1856-7 was 16·72 per 1000; that of England, 21·98; and of Scotch towns, 26·82. On account of the paucity of aged persons in the Australian population, the death-rate appears lower than it really ought to be; when corrected for this peculiarity, it is raised to 20·43 per 1000. The most frequent causes of death are violence (accidents and the like), and dysentery, debility, phthisis, and typhus follow in the order named. All malarious diseases are absent, or very nearly so. Aneurism appears to be remarkably frequent—86 in Australia, 16 in England; this the author thinks may be owing in part to the equestrian habits of the settlers.

MACARIO praises the virtue of turpentine-vapour baths in cases of gout, rheumatism, neuralgia, and chronic catarrh. The baths are not to be taken more frequently than every other day; they cause considerable sweating, and usually acceleration of the pulse. Nervous excitement is sometimes produced, and contra-indicates the use of the baths. The appetite becomes vigorous; sudamina and often furuncles form on the skin. The results do not seem to have been very brilliant.

LEHWESS performed several experiments with rabbits, the result of which was to show, that freshly prepared chloride of lime and chlorine liberated by Guyton Morveau's process can alone be relied on for the destruction of animal poisons, such as is generated in gangrene of the spleen (Milzbrand). Rabbits inoculated with this poison died in twenty-four to forty-eight hours, although the dead matter from which the poison was taken had been exposed for twenty-four hours to the action of a mixture of ordinary chloride of

lime and water. When freshly prepared chloride was used, they survived. The rabbit, after being inoculated with the same poison from an ox's spleen which killed another, survived after it had been freely exposed to chlorine vapours (generated from manganese, chloride of sodium and sulphuric acid) in a stable.

NEVINS relates several cases in illustration of the good effects that may sometimes be obtained by the employment of medicines in the state of vapour.

JACKSON praises cold affusion as a remedy for narcotic poisoning, and narrates three cases in which it was successfully employed. One of these was a lady who had been poisoned by an overdose of belladonna.

Case of a male, *æt.* 49, whose ears became, and remained, perfectly blue, cold, and livid, after an attack of jaundice, of no great severity. Except cold feet and hands, he suffers no other inconvenience. Case of profuse, constant, serous discharge from one thigh in a middle-aged female, of seventeen years' duration. The flow took place from a number of vesicles.

GALLWEY records two cases of unusual discharge of carbonaceous matter from the nares and intestines.

COOTE records a highly interesting case, in which cancer of the stomach was associated with tubercular disease of the lungs. The liver contained several cancerous masses. The extreme fundus and the pylorus of the stomach were the only parts unaffected; all the rest was converted into a hard substance, three quarters of an inch in thickness, which was in a state of uniform ulceration internally. Yet, during life, to the last the man's appetite had been good; he had no pain before or after food, no vomiting or nausea, and his bowels acted regularly. There was not only old, but also recent, tubercular disease in the lungs.

SCHRÖDER VAN DER KOLK, from the results of injections, arrives at the conclusion, that inflammation always occurs in the arterial and never in the venous system. On examining hepatic abscesses, after injecting all the three blood-vessels, he always found only arterial vessels in the wall of the cavity. Sometimes the hepatic-vein-branches were filled up to the wall of the abscess, showing that the new-formed arteries of the wall emptied themselves into these veins. No portal-vein-branches were ever found in the wall of the abscess. Also in parts of lungs which were most notably hepatized fluid was found which had been injected by the bronchial arteries, while at

the same time the capillary network surrounding the air-cells was entirely obstructed.

BERNARD considers fever always as a pure nervous phenomenon, since the organic conditions of it can be produced by acting on the nervous system alone. The cause of it may be an internal, as a poison absorbed into the veins, or an external, as an influence operating on the skin and through sensory nerves on the nervous centres. In all cases the effect is produced of paralysis of the sympathetic. The facts to which Bernard appeals are chiefly the well-known results of division of the sympathetic, as well as that of galvanic irritation of sensory nerves, which at first produce lowering, and subsequently, by exhaustion, elevation of the temperature.

HOPPE relates the results of numerous experiments on frogs, made for the purpose of determining the action of tartar emetic on contractile tissues and on the nervous substance. The heart was at first excited to increased pulsation, and afterwards enfeebled. On the vessels it seemed generally to have a contracting power. The nerves, brain, and spinal cord were enfeebled, and semi-paralysed by its action.

MANTEGAZZA, in an elaborate treatise on coca, describes—(1) the plant, its mode of culture, and the preparation of the leaves; (2) the mode in which it is used; (3) its physiological action, and its hygienic application; (4) its therapeutic action and employment; and (5) gives illustrations of its use in practice.

BIRCH, in a paper on oxygen as a therapeutic agent, states, "that abundant evidence can be brought forward to prove, beyond moral doubt, that in certain lowered conditions of the vital forces, this gas can not unfrequently exercise an alterative and tonic influence upon the entire animal economy which no other medicinal agent at present known can exert."

REPORT ON SURGERY.

BY

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TEXT-BOOKS.

- Druitt.**—The Surgeon's Vade Mecum. *London*, John Churchill. 8th edition.
- Smith.**—A Manual of Operative Surgery on the Dead Body. 8vo, cloth. *London*, 1859, Longman, Green, and Co.
- Billroth.**—Historische Studien über die Beurtheilung und Behandlung der Schutzwunden vom funfzehnten Jahrhundert bis auf die neueste Zeit. [An Historical Sketch of the opinions which have prevailed respecting Gunshot Wounds, and of their treatment, from the fifteenth century to the present time.] *Berlin*, 1859, George Reimer.
- Williamson.**—Notes on the Wounded from the Mutiny in India, with a description of the Preparations of Gunshot Injuries contained in the Museum at Fort Pitt. 8vo, cloth. *London*, 1859, John Churchill.
- Appia.**—Chirurgien à l'ambulance, ou quelques études pratiques sur les plaies par armes à feu, suivies de lettres à un collègue sur les blessés de Palestro, Magenta, Marignan, et Solferino. [The Surgeon at the Ambulance; or, Practical Studies of Gunshot Wounds, accompanied by Letters to a Colleague about the Wounded at Palestro, Magenta, Marignan, and Solferino.] Fol. *Genève*, Cherbuliez. *Paris*, J. B. Bailliere.

DRUITT'S new edition contains a fresh chapter on inflammation, and that on gunshot wounds has been enlarged and rewritten; those on the eye, on the radical cure of hernia, on ovariectomy, and on excision of the knee-joint, contain much fresh matter.

BILLROTH gives an interesting historical sketch, with especial reference to the views respecting gunshot wounds, and the principles regulating their treatment, which have prevailed during the last four hundred years.

WILLIAMSON has drawn up a statistical analysis of 743 cases received at the Invalid Dépôt, Chatham, from the Indian Mutiny. The large proportion of recoveries from fractures of the thigh

during the Indian Mutiny, as contrasted with the experience of the Crimean campaign, is interesting.

APPIA's is a short practical treatise. According to him *débridement* is no longer practised in gunshot wounds by French military surgeons, except for a specific object, as the removal of the ball, &c. Instead of it he recommends long cuts through skin and fascia when there is much inflammatory swelling; the muscles bulge through the cuts, but this is of no moment. If the bullet can be extracted without a grave operation, this should always be done; but if not, it should be left. It was the French practice in the Crimea to remove all splinters of bone immediately, and Baudens insists upon it; but Stromeyer waits till large splinters have become loose, as by so doing the periosteum is spared, and he also shows that gunshot fractures often heal with very slight exfoliation.

The first dressing should be simple—a handful of charpie soaked in cold water. Continual irrigation is especially useful in moderating the first inflammatory swelling.

In secondary hæmorrhage, requiring deligation, the artery should be tied above the wound. During the Revolution in Paris, 1848, and in the Crimea, primary amputations were more successful than secondary. In 1848, fractures of the femur were barely curable, and in all comminuted fractures in the lower two thirds immediate amputation should be performed; but this rule does not apply to those in the upper third, because amputation near the hip, or disarticulation, is so generally fatal, that it is better to try to save the limb. After the battles of Alma and Inkermann thirteen amputations at the hip were performed, and all the patients died; but of ten fractures at the hip, unamputated, three recovered. In his letters from Italy, Appia mentions that amongst 10,000 wounded in Turin and elsewhere he did not see a single case of resection. Tetanus was not infrequent; one case, which was treated with a lotion of curara, 1 gramme to 80 centigrs. of water, recovered. Penetrating wounds of the chest were frequently left open, and in general no especial care was taken to close them; but he subsequently adds that few of these patients recovered.

INFLAMMATION.

Vanzetti.—On the Treatment of External Inflammation by Digital Compression. (Padua, l'Union, 115, 1858.) Schmidt's Jahrb., No. 2, 1859.

Manso.—On the Application of Permanent Water-baths in the Treatment of the Larger Operation Wounds. (Forhandl. ved. de Skandinav. Naturforskeres. Maede i Christiana, p. 384.) Schmidt's Jahrb., No. 7, 1859.

VANZETTI, from the known efficacy of the digital compression of the artery in aneurism, was induced to try it in external inflammations where the artery concerned was in reach of the finger. In many instances his expectations were fully realised, and he mentions a case of severe phlegmonous erysipelas of the left forearm, where digital pressure on the subclavian artery was employed with good success.

MANSO reports on nine experiments. The cases were incisions on account of large abscesses, caries, &c. The limbs were placed in zinc vessels, filled with water, at 24° R., which was changed twice daily. The alleged advantages are—diminution of pain and fever, easier and more complete escape of the discharges, and promotion of the healing process.

ECRASEUR.

Michaelis.—On the value of the Larger Bloodless Operations in modern times. (Wien. Ztschr. N. F. ii, 13, 1859.) Schmidt's Jahrb., No. 7, 1859.

Maisonneuve.—Méthode diaclastique ou par rupture. [Amputation by Diaclassis.] (Gaz. de Paris, 19, 1858.) Schmidt's Jahrb., No. 1, 1859.

Quinlan.—On the use of the Ecraseur in the operation for Anal Fistula; illustrated by cases. Dublin Hosp. Gaz., Jan. 15th, 1859.

MICHAELIS presents us with a critical review of the use of caustics and the écraseur.

MAISONNEUVE advocates amputation with the constrictor, by which he thinks to avoid many of the causes of death following amputation with the knife. The bone is previously snapped across by a machine, the ostéoclaste, devised by him for this purpose.

QUINLAN prefers the écraseur to the bistoury for the division of anal fistula, especially in persons whose health is broken. He first passes a bent probe through the fistula into the bowel, and out through the anus, and then threads the probe with a silk cord, by which he draws the chain of the écraseur through.

AMPUTATION.

Burow.—On the Causes of Frequent Deaths after Amputation. (*Deutsche Klinik*, 21, 22, 1859.) *Schmidt's Jahrb.*, p. 212, 1859.

Hancock.—Practical Clinical Remarks on Painful Cicatrix and Irritable Stump. *Lancet*, July 23d, 1859.

Flower.—Epithelial Cancer occurring in the Cicatrix of a Burn on the Arm, necessitating Amputation at the Shoulder-joint. *Ib.*, March 26th, 1859.

Johnson.—Malignant Tumour of the Arm after Fracture; Amputation at the Shoulder-joint. *Ib.*, March 26th, 1859.

Solly.—Clinical Lecture on Partial Amputation of the Hand. *Ib.*, Jan. 1st, 1859.

Burgess.—Case of Partial Amputation of the Hand. *Ib.*, April 2d, 1859.

Eager.—Partial Amputation of the Hand. *Ib.*, Jan. 8th, 1859.

Coulson.—Recurring Fibro-plastic Tumours; Partial Resection of the Hand. *Ib.*, Feb. 26th, 1859.

Sedgwick.—Amputation at the Carpo-metacarpal Articulation. *Med. Times and Gaz.*, p. 170, 1859.

Clement.—Tumour of the Upper Third of the Thigh; successful Amputation at the Hip-joint. *Brit. Med. Journ.*, Jan. 1st, 1859.

Cock.—Epithelioma of the Right Leg and Tibia; Amputation; Recovery. *Lancet*, Jan. 15th, 1859.

Watson.—Clinical Remarks on Pirogoff's Operation. *Ib.*, June 11th, 1859.

Curling.—Pirogoff's Amputation. *Med. Times and Gaz.*, p. 59, 1859.

BUROW performed 62 amputations in the course of twenty-five years, and 3 only were fatal; 15 were amputations of the forearm, 20 of the arm, 15 of the thigh, 11 of the leg, and 1 through the foot. The great success is ascribed to the after-treatment. No bandage should be applied, and the wound is not to be closed immediately, but exposed to the air for twenty or thirty minutes. Circular amputation is alone permissible when sufficient material for flaps is wanting.

HANCOCK points out that the excision of painful scars of stumps and neuromata frequently fails; and he proposes instead the subcutaneous separation of the cicatricial tissue from the bone. By subsequently moving the part over the bone daily, union is to be prevented.

FLOWER'S patient, a pale, delicate woman, æt. 27, had been severely burned when nine years old. She had extensive scars upon the right arm, shoulder, back, chest, and neck. There was an open sore upon the inside of the arm, having all the characters of epithelial cancer, and reaching from two inches above the elbow almost to the

armpit, and in breadth it occupied nearly one third of the circumference of the limb. The axillary glands were enlarged, and the skin covering them was ulcerated. Together with the arm, the diseased contents of the axilla were removed. The patient, at the time of this report, was doing favorably.

JOHNSON'S patient, æt. 28, had broken his arm about the middle, nine months previously. A tumour, of the size of a cocoa nut, formed at the site of fracture. It was considered to be malignant. Amputation, with lateral flaps, was performed at the shoulder, with little loss of blood, but an hour afterwards free hæmorrhage, requiring thirty ligatures to arrest it, took place. The patient recovered.

SOPLY'S lecture contains reports of five cases of severe injury of the hand. The duty of preserving any portion of the thumb or fingers left entire is strongly insisted on.

BURGESS reports a severe accident from a threshing machine. The first, second, and third fingers of the left hand were wholly crushed, and the little finger and thumb partially so. The palm and back of the hand were greatly lacerated. The mutilated phalanges were alone removed, and an excellent hand was preserved.

EAGER says a powder-flask had exploded in the hand. The little finger was blown off; the metacarpal bones of the other fingers were broken; the thumb was dislocated. Amputation was rejected. The torn joints were adjusted, and a most useful hand was preserved.

COULSON describes a tumour, as large as a small apple, over the metacarpal bone of the thumb. He removed the growth with the metacarpal bone and part of the radius. It had been previously twice removed.

SEDGWICK says the palm of the hand, the third and fourth fingers, were shot away, and the second finger hung by the skin only. The metacarpal bones of these fingers, together with the os magnum and unciform bone, were removed. The thumb and forefinger were saved; fair movement was preserved.

CLEMENT'S patient was a married woman, 32 years old, and the tumour reached to within two inches of Poupart's ligament; its circumference was thirty-four and a half inches. A short anterior flap was made by transfixing the limb, and a longer one cut from behind. On the third day the line of incision had united in nearly its whole extent, and at the end of a month she was on crutches. The growth was a soft, liver-like substance, intersected

by fibrous bands. It extended to the periosteum, but the bone was healthy.

WATSON reports a severe injury of the foot, for which he amputated at the ankle in the manner practised by Pirogoff. He suggests a modification of Pirogoff's operation, by which the foot is removed without disarticulating at the ankle-joint.

CURLING cut the os calcis obliquely, after Busk's modification.

SUTURES.

Aveling.—Antiquity of Metal Sutures. *Med. Times and Gaz.*, 1859, p. 82.

AVELING quotes Fabricius Aquapendente, to show that he employed flexible needles of iron or brass, which he passed through the lips of the wound, afterwards twisting their ends together. He says that Fabricius Aquapendente was aware of the advantages of these sutures over those of thread.

HEAD AND NECK.

MALFORMATIONS, DISEASES, AND INJURIES OF THE MOUTH, PHARYNX, AND OESOPHAGUS.

Friedberg.—On the Pathology and Treatment of Hare-lip. (*Prag. Vierteljahrsch.*, vol. lxi, 1859, pp. 91—113.) *Schmidt's Jahrb.*, No. 7, 1859.

Ward.—Congenital Fissure of the Right Cheek; Operation; Recovery. *Lancet*, May 28th, 1859.

De Meric.—Syphilitic Gangrene of the Mouth, with impending Suffocation; Laryngotomy; Recovery. *Lancet*, Feb. 26th, 1859.

Ward.—Laceration and Detachment of the Soft Palate; Readjustment by Sutures; Perfect Union. *Med. Times and Gaz.*, June 18th, 1859.

Baizeau.—On Perforations and Clefts of the Palatal Vault. A report by H. Larry on Baizeau's work on this subject. (*Union*, Nos. 13 and 15, 1859.) *Schmidt's Jahrb.*, No. 7, 1859.

Fiddes.—Case of Extirpation of the Tongue. *Edin. Med. Jour.*, June, 1859.

Thompson.—Severe Hæmorrhage from the Tonsil arrested by the Solution of the Perchloride of Iron. *Lancet*, Nov. 19th, 1859.

Jobert de Lamballe.—On Polypi of the Nose and Fauces. (*Gaz. des Hôp.*, No. 85, 1858.) *Schmidt's Jahrb.*, 1859.

Roeser.—A Polypus of the Pharynx removed by Twisting and Tearing it off, (*Würtemb. Corr.*, vol. xxi, 1859.) *Schmidt's Jahrb.*, No. 9, 1859.

Erichsen.—A Clinical Lecture on the Surgical Diagnosis of Difficult Deglutition. *Lancet*, March 26th, 1859.

Addison and Forster.—Stricture of the Œsophagus in a Child from swallowing a Corrosive Fluid; Threatened Starvation; Gastrotomy; Death. *Ib.*

FRIEDBERG describes a dissection of a case of double hare-lip, with cleft palate and microphthalmos, and states that after operations on the hare-lip the cleft in the palate often closes spontaneously.

WARD says the cleft ran horizontally backwards from the natural position of the right commissure of the lips to the anterior border of the masseter muscle. Its edges were pared, the fissure was closed with twisted sutures, and perfect union took place.

DE MERIC's patient was a prostitute, whose health was broken by privation, excesses, and by the abuse of mercury, which she had taken by a friend's advice. The canula was removed on the third day.

WARD relates that a boy, three years old, fell down stairs with a piece of wood in his hand, which ran into his mouth and tore nearly the whole of the soft palate from the bone. The loose flap had an attachment a quarter of an inch broad, just above the right tonsil. Under chloroform, the torn part was secured in position with four stitches.

BAIZEAU divides clefts of the palate into those which are acquired, as by wounds, &c., and those which are congenital. When of small extent, cauterization may suffice to close them. The various obturators which have been devised for larger clefts are described, and the different autoplasmic operations are sketched out.

FIDDES performed complete extirpation of the organ for carcinoma, and the patient, a woman, thirty-five years old, recovered. Deglutition was but little impaired, and speech still sufficiently preserved to allow her to engage in conversation. The importance of securing one lingual artery before the other is divided is pointed out.

THOMPSON's is a case of acute tonsillitis. The throat was lanced by a surgeon; no pus escaped, but about a pint of blood was lost. Next day another lancing, and another bleeding, to half a pint. On the second day she was admitted into the Marylebone Infirmary, and that night had a profuse hæmorrhage, to the extent of three pints and a half. Thompson found a small opening in front of the right tonsil, from which the blood was rapidly flowing; this he compressed with his finger till he could apply the solution of iron,

which was done freely two or three times. A return of the bleeding, a quarter of an hour afterwards, was checked in the same way. The patient did well.

DE LAMBALLE reports a case of fibrous polypus, attached by a broad root to the base of the skull. He removed it by first dividing the soft palate, which was drawn upwards with a forceps by an assistant; then seizing the polypus with Museaux's forceps, he cut through its root with a curved bistoury, and cauterized the rest. The result was satisfactory.

ROESER describes a tumour of fibroid structure, which grew from the lower part of the back of the pharynx. The patient's head was bent forwards, and any attempt to sit upright caused a paroxysm of suffocation. He seized the tumour with a vulsellum, drew it forwards, and then forcibly wrenched it away with a lithotomy forceps. There was hardly any bleeding, and a rapid recovery ensued.

ERICHSEN points out eight conditions, independent of stricture, which may cause dysphagia by compressing the œsophagus. They are—1. Tumours of the pharynx. 2. Morbid states of the larynx. 3. Tumours in the neck. 4. Aneurism of the innominate artery. 5. Aortic aneurism. 6. Intra-thoracic tumours in the posterior mediastinum. 7. Dislocation of the sternal end of the collar-bone backwards. 8. Impaction of a foreign body in the œsophagus. Three kinds of stricture are described: 1. Hysterical or spasmodic stricture. 2. Fibrous stricture. 3. Carcinomatous stricture.

ADDISON and FORSTER's patient was a child, four years old, who had swallowed, nineteen weeks before his admission, a corrosive alkaline fluid, which caused an almost impermeable stricture of the œsophagus. He was apparently dying from starvation, when Forster performed gastrotomy. From that time he took food freely, and his sense of hunger diminished; he became more lively, and seemed to be doing well. Four days afterwards, sudden acute pain in the bowels, followed by death in about five hours. The contents of the stomach had escaped into the peritoneum, and caused inflammation.

AIR-PASSAGES.

Martini.—On Tracheotomy. Schmidt's Jahrb., vol. 102, 1859, pp. 73—110.

Gesenius.—Catheterism of the Larynx, and its Relation to Tracheotomy. *Ib.*, No. 5, 1859.

Statistical Report on the Results of Tracheotomy. *Med. Times and Gaz.*, Oct. 15th, 1859.

Tudor.—On the Treatment of Œdema Glottidis by Scarification. *Lancet*, Aug. 13th, 1859.

Buller.—Acute Laryngitis; Laryngotomy; Remarks. *Med. Times and Gaz.*, June 18th, 1859.

Barker.—Chronic Laryngitis; Sudden Asphyxia; Tracheotomy; Recovery. *Ib.*, Aug. 6th, 1859.

Porter.—Chronic Ulceration of the Larynx; Death by Asphyxia, from food becoming impacted in the Glottis. *Dub. Hosp. Gaz.*, March 1st, 1859.

Jeaffreson.—Syphilitic Laryngitis; Recovery; Inability to dispense with the Canula. *Med. Times and Gaz.*, 1859, p. 8.

Barker and Simon.—Diphtheria; Impending Suffocation; Tracheotomy; Death; Autopsy. *Ib.*, 1859, p. 112.

Forster.—Foreign Body in the Trachea; Tracheotomy; Death; Autopsy. *Guy's Hosp.*

Skey.—Tracheotomy performed for the Removal of a Tamarind-stone from the Trachea. *Med. Times and Gaz.*, July 30th, 1859.

MARTINI'S memoir commences with a brief historical sketch of this operation, and contains reports of a large number of cases, systematically arranged under—(a) croup; (b) œdema of glottis, acute and chronic laryngitis, and stenosis of the larynx and trachea; (c) foreign bodies in the air-passages; (d) tumours compressing the air-passages. Martini figures several special instruments.

GESENIUS thinks that tubage of the larynx may be indicated whenever the free passage of air into the trachea is impeded; or it may be done to facilitate the topical application of remedies to the interior of the air-passages, and for this latter purpose a common, flexible, male catheter is most useful. Recently the introduction and retention of a short tube in the larynx has been proposed by Bouchut as a substitute for tracheotomy in croup and other obstructions of the air-passages. The tube is slightly conical, and has a double belt about the middle. It is to be pushed down into the larynx, so that the lower vocal cords lie in the chink of the belt, and the epiglottis moves freely above it. The commission appointed

by the Academy of Medicine of Paris to investigate the value of this proceeding passed an unfavorable opinion upon it.

This REPORT contains particulars of eighty-eight cases, comprising—
1. Tracheotomy for laryngeal disease, not including true croup (this series contains many cases of syphilitic); laryngitis. 2. Tracheotomy for scalds of the glottis. 3. Tracheotomy for croup—fourteen cases, with four recoveries. 4. Tracheotomy for foreign bodies in the air-passages—thirteen cases; eight recoveries, and five deaths. Attempts to seize the foreign body with forceps were generally unsuccessful; in the cases which recovered, it was ejected by coughing.

TUDOR confidently recommends, from personal experience, the scarification of the œdematous submucous tissue over the epiglottis, and figures a curved bistoury for the purpose. This treatment has long been practised at the “Dreadnought.”

BULLER's patient was a stout but scrofulous woman, æt. 21. Suffocation was imminent. The operation was difficult, from the swollen state of the neck. Several arteries and one or two turgid veins bled profusely. Complete recovery took place. Some critical remarks upon inflammatory affections of the larynx, and the after-treatment of laryngotomy, are appended.

BARKER's patient, fifty-two years old, had had syphilis thirty years previously. Laryngeal symptoms had existed for four months. Several weeks after he entered the hospital, he fell one evening nearly suffocated. The trachea was at once opened by the house-surgeon; immediate relief followed the introduction of the canula. The man was discharged a month afterwards.

PORTER tells us that symptoms of laryngeal disease had existed two years. Sudden death. A piece of mutton was found firmly impacted in the rima. The epiglottis was destroyed, the stem of it only remaining.

JEAFFRESON describes a case of laryngitis in a prostitute, who had first contracted syphilis fourteen years previously. Hoarseness first noticed nine weeks before her admission into the hospital. Never any cough. Leeching, antimony, and mercury had been already tried, but the symptoms were so urgent that tracheotomy was proposed, but not performed till two days afterwards. In the interim the mercurial treatment was persisted in, and temporary relief was obtained by two bleedings to twenty-four and eighteen ounces. The patient recovered, but could not breathe when the tube was removed.

BARKER and SIMON's case of a horse-boy, thirteen years old, admitted with urgent dyspnœa. Fauces red, and a white patch on the right tonsil and uvula. Hydrargyrum given, but symptoms becoming more pressing, Simon opened the trachea next day. Great immediate relief. On the day following, increasing dyspnœa, and death forty-eight hours after the operation. The false membrane had extended down the trachea, and completely blocked many of the smaller bronchial tubes.

FORSTER's patient, a little boy, three years old, swallowed a French bean, which lodged in the right bronchus. The trachea was freely opened, but the bean was not expelled, nor could it be withdrawn with forceps. At the autopsy it was found much swollen, and firmly fixed in the bronchus.

SKEY opened the trachea freely an hour and a half after the accident. Attempts to catch the stone with forceps were ineffectual; but the edges of the tracheal wound being held apart with hooks, it was forcibly ejected by a cough. The child recovered.

TUMOURS OF THE NECK.

Pitha.—The Diagnosis and Treatment of Tumours in the Neck. (Oesterr. Ztchr. f. prakt. Heilk., vol. v, p. 18, 1859. Beilage.) Schmidt's Jahrb., No. 9, 1859.

Thamhayn.—The Surgical Treatment of Diseases of the Thyroid Gland. A Report of cases treated by Werner, Schuh, Erichsen, and Chelius. *Ib.*, No. 2, 1859.

Drittl.—Cystoid Tumour in the Front of the Neck in a Child two years old; Extirpation and Cure. (Oesterr. Zeitschr. f. prakt. Heilk., vol. v, p. 6, 1859.) *Ib.*, No. 9, 1859.

Nelaton.—Extirpation of a large Tumour in the Neck; Recovery. (Gaz. des Hôp., 33, 1859.) *Ib.*

Fergusson.—Case of Serous Bronchocele treated by Incision. *Lancet*, May 28th, 1859.

PITHA says, tumours in the neck are of great moment to the surgeon, on account of the difficulties which occasionally attend an exact diagnosis of their nature and anatomical relations.

The swelling and tension which attend acute inflammatory deposits make them appear to be more deeply seated than they really are, whilst deeply seated tumours of slow growth gradually thin the overlying tissues, and push aside the vessels and nerves till they reach the surface, when their more rapid enlargement, perhaps, first

attracts the notice of the patient, and gives a fallacious idea that they are superficial.

In illustration of this, a case is related of an apparently superficial cyst in the neck, an incision into which was followed by such profuse hæmorrhage that a temporary ligature was placed on the common carotid artery. This did not arrest the bleeding that came from a large vessel running forward from the back of the cyst, which overlaid the vertebræ, to the upper angle of the wound. It was an offset from the vertebral artery, as large as a crow-quill.

Other cases of cysts in the thyroid gland are reported, which are all remarkable for the dangerous hæmorrhage which took place when they were opened. Pitha recommends iodine injections.

THAMHAYN quotes from Werner a case of thyroiditic suppuration, which was treated by incision and terminated favorably, and one of large extravasation of blood in the thyroid region, which formed a prominent livid swelling on the right side of the neck. It burst, and blood freely oozed away. The opening was enlarged, and a quantity of black, broken coagulum was removed; the cavity granulated and healed. From the direction which a probe took, it must have been situated within the substance of the right lobe of the gland. A case of parenchymatous bronchocele, in which Werner tried to extirpate the tumour, which reached from the chin to the sternum, ended fatally. The attempt was abandoned after having lasted an hour and a quarter. The bleeding was very free; twenty-four ligatures were used. Gangrene set in, and death followed on the twelfth day. Schuh recommends the injection of cystic bronchocele with iodine. Chelius treated eleven cases of cystic bronchocele by free incision; he stitched the cyst to the edges of the external wound.

The memoir contains a collection of remarkable cases of cystic, cavernous, and colloid tumours. The injection of cystic bronchoceles with iodine is certainly preferable to incision, which in all the reported cases was followed by very profuse and dangerous hæmorrhage.

DRITTL's patient had a congenital cyst, reaching from the chin to the sternum, and outwards on both sides of the median line beneath the sterno-mastoid muscle. Its extirpation was difficult, on account of its connexion with the hyoid bone, the larynx, and trachea. The child made a rapid recovery.

NELATON removed a fibro-fatty tumour, which reached from the

chin to the sternum, and from the middle line outwards on the right side of the neck to the spines of the vertebræ. Its extirpation was effected with small loss of blood. The external and internal jugular veins, the carotid and subclavian arteries, were exposed in the dissection.

FERGUSSON'S patient, a young woman, had had, during fifteen years, a progressive enlargement of the thyroid gland, which formed a considerable swelling in front of the neck. The chief part of it consisted of a large fluctuating cyst. This was punctured, and then slit up. Several ounces of dirty-brown serum escaped. The cyst was filled with lint, but free oozing from the interior continued for some time. Fergusson thought that the tendency to bleeding from the inner surface of these cysts renders them unfit for injection with iodine.

CHEST-WOUNDS.

Jackson.—Case of Gunshot Wound of the Heart, &c., where the patient survived three hours and a half. *Lancet*, Nov. 19th, 1859.

Johnson.—Laceration of the Lung without Fracture of the Ribs. *Brit. Med. Journ.*, March 5th, 1859.

JACKSON relates, that the man, whilst sitting at his door, was shot, November 3d, 1856, at a quarter before eight o'clock p.m., with a pistol, fired by a person in front of him, at several paces' distance. Two bullets struck the centre of his sternum; one pierced the bone, and the other glanced off. The hæmorrhage was inconsiderable. There was great dyspnœa, and much pain in the loins and about the bladder, with an intense desire to pass urine. He died at a quarter past eleven o'clock p.m., three and a half hours after the injury. The ball which pierced the sternum had traversed the pericardium, struck the apex of the heart, and made a hole in the right ventricle, through which the tip of the little finger could be passed. The pericardium was nearly full of clotted blood and serum. The ball afterwards passed through the diaphragm, behind the stomach, and lodged loosely in the recto-vesical pouch of the peritoneum, having in its course bruised the intestines in several places without perforating them. The bullet which glanced off the sternum was traced for some distance between the abdominal muscles, but had not penetrated the cavity.

JOHNSON'S patient, a little boy, æt. 7, was struck down by a cab, and the wheels passed over his chest. He had great pain in the belly and left side of the chest, which was dull, and over which no respiratory sound could be heard; he also vomited blood. Four hours afterwards the intercostal spaces were distended. Great dyspnœa, and death on the following day. The ribs were found to be uninjured; but the lung was extensively lacerated, and the pleural cavity was full of blood.

ABDOMEN.

INTERNAL INTESTINAL OBSTRUCTION, FROM ADHESIONS, INTUS-SUSCEPTION, TORSION, IMPACTION OF FÆCES, AND STRICTURE OF THE RECTUM.

Brugnoli.—Ileus caused by Adhesion of the Ileum to the Urinary Bladder. (*Press. Méd.*, 37, 1858.) *Schmidt's Jahrb.*, No. 3, 1859.

Streubel.—Case of Twisting, with Obstruction at the lower end of the small intestine. *Ib.*

Hennett.—Exfoliation of the Cæcal End of the Large Gut in consequence of an intus-susception. (*Pr. Ver. Zgt. n. F.* 1, 31, 1858.) *Ib.*

Cabaret.—Invagination of the Colon in a Child replaced by the method of Pelletier. (*Rev. de Thér. Méd.-Chir.*, 13, 1858.) *Ib.*

M'Kidd.—Case of Invagination of the Cæcum and Appendix. *Edin. Med. Journ.*, March, 1859.

Betz.—On Intus-susception. *Mém. a. d.* (*Praxis* 11, 23, and 24, 1858.) *Ib.*

Theile and Aberle.—Cases of Stercoraceous Obstruction. (*Oesterr. Ztschr. f. prakt. Heilk.*, vol. iii, pp. 40—52, 1857.) *Ib.*

Thompson.—Stricture of the Sigmoid Flexure; Constipation during forty-one days, relieved by opening the colon behind the peritoneum; Death from perforation above the seat of stricture. *Med. Times and Gaz.*, April 23d, 1859.

Todd.—Remarks on Stricture of the Rectum. *Ib.*, Aug. 6th, 1859.

Frommann.—Case of Intus-susception. (*Deutsche Klinik*, No. 35, 1859.) *Schmidt's Jahrb.*, No. 3, 1859.

BRUGNOLI says the obstruction was preceded by diarrhœa and great pain in the belly. Three inches from the ileo-cæcal valve there was a firm adhesion of the ileum to the summit of the bladder, which prevented the passage of the contents of the gut. The mucous membrane of the bowel presented eight oval ulcers, and a perforation had taken place at the adherent part.

STREUBEL'S patient was an infant. The symptoms set in a few hours after birth, and persisted despite of the rupture of an

adhesion which was found in the rectum. It lived forty hours. The ileum was twisted on itself about three inches above the cæcum.

HENNETT says the cæcum, with processus vermiformis, was cast off, and the patient recovered.

CABARET mentions that a considerable length of colon protruded through the anus; it was returned by pressure with a gum-elastic sound, which was worn for several hours to prevent the bowel descending again.

M'KIDD reports that a boy, æt. 7, had paroxysms of severe pain about an inch below the navel, but pressure could be borne at first over the whole belly. Afterwards pressure in the right iliac region gave pain. No constipation. Death one month after the first appearance of the acute symptoms. The child had occasionally had pain in the belly for a month before M'Kidd saw him. The caput cæcum and vermiform appendix were invaginated in such a way that the appendix was placed across the ileo-cæcal valve, and imperfectly blocked the aperture. The invaginated parts were inflamed and gangrenous.

BETZ discusses the various theories of intus-susception, and lays little stress on the share which the peristaltic movements of the bowel are supposed to take in producing intus-susception. He explains it by a mechanical theory. He supposes that a lump of fæces sticking firmly in a narrow portion of gut is pushed forcibly downwards by flatus or fæces from above into a wider piece of gut directly below it, the lump dragging down with it the narrower gut in which it is impacted; or traction from below, as by a polypus, may cause it. He confirms Billiets' and Thompson's statements, that it occurs more often in men than in women. It is probable that in some cases the symptoms do not immediately manifest themselves. The first symptom is pain, which, in little children, is very slightly increased by pressure. The passage of blood by the anus is a very important sign, and is always present in children. The separation of the gangrenous portion of gut is often preceded by an abundant flow of blood, mixed with fetid, gangrenous matters, and where the small intestine has been much distended, it is followed by a copious stool.

THOMPSON'S patient, æt. 39, was five months pregnant when admitted into the St. Marylebone Infirmary, 9th of March, 1859, and

was quite sure that she had not passed a motion since the 31st of January preceding. Two or three days before that time she felt something give way in her abdomen whilst lifting a heavy weight. She had taken croton oil and other purgatives without relief. Large quantities of fluid fæces were discharged through the artificial opening. She sank on the afternoon of the second day. The sigmoid flexure of the colon was drawn across to the right side of the spine, and fixed there by constricting bands of lymph to the mesentery. Above this part there was a small hole in the gut. There were signs of general peritonitis.

TODD describes and figures an instrument which dilates the stricture without distending the anus.

FROMMANN reports this remarkable case from the practice of Professor Lehrbuschen. The passage of 32" of small intestine per anum was followed by rapid amendment and recovery.

HERNIA.

James.—Practical Observations on the Operations for Strangulated Hernia. 8vo, cloth. *London*, John Churchill.

Paupert.—The Resection of the Omentum in Operations for Hernia. (*Bull. de Thér.*, vol. iii, p. 502, Dec., 1857.) *Schmidt's Jahrb.*, No. 5, 1857.

Heath.—Strangulated Umbilical Hernia; Removal of the Sac and adherent Omentum with Success. *Lancet*, April 2d, 1859.

Erichsen.—Practical Clinical Remarks on Congenital Hernia complicated with an Undescended Testis. *Ib.*, July 9th, 1859.

Ravoth.—Successful Operation for Strangulated Hernia in an Infant. (*Deutsche Klinik*, No. 29, 1858.) *Schmidt's Jahrb.*, 1859.

Curling.—Direct Inguinal Hernia in a Female. *Med. Times and Gaz.*, p. 264, 1859.

Musset.—Successful Operation on a Strangulated Inguinal Hernia in a Woman, fifty years old. The Strangulation had existed four days. *Journ. de Bord.*, June, 1858.

Estevenet.—Fæcal Fistula after the Operation for Strangulated Hernia. (*Journ. de Toulouse*, March, 1858.) *Schmidt's Jahrb.*, No. 1, 1859.

Bezzonico.—Cure of an Artificial Anus by Palliative Treatment. (*Ann. Univ.*, April, 1858.) *Schmidt's Jahrb.*, No. 1, 1859.

Schmidt.—Strangulated Crural Hernia, with Rupture of the Coverings. (*Bayer. aerzt. Intell.*, vol. xlv, 1858.) *Schmidt's Jahrb.*, No. 5, 1859.

Legendre.—Crural Hernia through Gimbernat's Ligament. (*Gaz. de Paris*, 13, 1858.) *Schmidt's Jahrb.*, 1859.

Adams and Wood.—Strangulated Inguinal Hernia; Descent of Intestine in a distinct Sac behind a large Hydrocele. *Lancet*, Feb. 26th, 1859.

Dieulafoy.—Three Cases of Inguinal Hernia reduced "en masse." (*Journ. de Toulouse*, May, 1858.) *Schmidt's Jahrb.*, No. 1, 1859.

Perrin.—Scrotal Hernia; a second Sac. (Soc. Méd. d'émulation. L'Union, 33, 1858.) Schmidt's Jahrb., No. 1, 1859.

Hartung.—Formation of a Pouch or Pocket of the Sac in Strangulated Inguinal Hernia, by the separation of the fascia transversalis from the muscl. transv. (Deutsche Klinik, 20, 1858.) Schmidt's Jahrb., No. 1, 1859.

Redfern Davies.—Femoral and Ventral Hernia Radically Cured. Med. Times and Gaz., p. 158, 1859.

Redfern Davies.—On the Radical Cure of Hernia, with an Account of an Improved Instrument, and Notes of Forty Cases. Ib., Aug. 6th, 1859.

Lister.—Two Cases of Radical Cure of Hernia. Ib., p. 31, 1859.

JAMES's memoir contains an analysis of thirty-six cases operated on by himself, and an inquiry into the causes of death. He notices the extreme rarity of strangulated inguinal hernia in females, though this form of hernia, without strangulation, has been shown to be not infrequent. The difficulty of diagnosis in the female, when the hernia is so large that Poupart's ligament cannot be traced, is alluded to, and an additional sign is pointed out, viz., if true inguinal, the hernia, escaping through the ring, must *descend* into the groin and labium; but when femoral and large, the tumour *mounts* towards the spine of the ilium. With a single exception, James had opened the sac. As an auxiliary means to the taxis, he thinks that tobacco cannot be replaced by chloroform, as the latter does not unload the capillaries or excite the peristaltic action of the bowels.

POUPERT discusses the treatment of omentum which cannot be reduced on account of its volume, induration, and adhesions, or its gangrenous condition. Richter and many others are quoted, to show that deligation is not only unnecessary, but even injurious; unnecessary, because the bleeding after excision of the omentum is slight, and injurious, because the ligature provokes suppuration. If the spontaneous separation of the gangrenous omentum is waited for, a dangerous suppuration is maintained, and the recovery is tardy. Hæmorrhage, which is regarded as the great danger of resection, is shown from several authorities not to be a cause of anxiety; but whilst deligation *en masse* is reprehensible, it may be requisite to tie the vessels separately. Richter advises the cut to be made through the gangrenous tissue, without interfering with the healthy portion; the omentum should then be returned, leaving the gangrenous margin to be thrown off within the belly. Sir A. Cooper, on the other hand, strongly recommends the incision to be carried through healthy tissue.

Demarquay has remarked that dangerous inflammation oftens follows the reduction of omentum, in confirmation of which he cites three cases.

HEATH'S patient, *æt.* 55, had had an umbilical hernia for twenty years. It was as large as the fist, and had been strangulated two days. The aperture in the abdominal walls was immediately below the navel, and its margin having been divided downwards, the gut was returned. Heath then dissected the sac from its connexions and passed a double thread through its base, and through a large piece of adherent omentum, after which he cut both the sac and omentum away. The subsequent treatment consisted of the free exhibition of opium. The wound healed without any appearance of protrusion.

ERICHSEN, after alluding to the common form of congenital hernia in which the testis is in the scrotum, calls attention to a second and more uncommon form of hernia, where the testis has been retained above the external inguinal ring, and adduces some cases of this nature.

RAVOTH reports an inguinal hernia in a boy fourteen months old. A truss had been worn from the sixth month, the spring broke, the bowel came down and became strangulated. Forty-eight hours after the onset of the symptoms Ravoth operated. The large size of the swelling made it probable that the cæcum formed part of the protrusion. The sac was unopened, the ring dilated with a blunt hook, and the contents returned without further difficulty. Cicatrization was complete on the twenty-first day. Reference is made to seventeen cases of herniotomy in children, nine of which proved fatal.

CURLING'S patient, *æt.* 60, had had an irreducible hernia for nineteen years. Strangulation during four days; the swelling, as large as an egg, occupied the left labium. The sac was opened; the stricture was very tight; some dark, congested omentum was returned, and a portion that was adherent and irreducible was cut off. She died twenty-one hours afterwards. The neck of the sac was internal to the epigastric artery; the conjoined tendon was to its inner side. The strangulated gut was three inches long, claret-coloured, and coated with lymph.

In MUSSET'S case, the bulk of the hernial tumour, which was as large as a fist, consisted of omentum, closely adherent to the sac. A small loop of gut was returned, but the omentum left down. It came away in shreds, without any dangerous symptoms.

ESTEVENET's is a case of strangulated crural hernia, where the sac was opened and the bowel replaced. Shortly afterwards, fæces came through the wound, and a fæcal fistula formed, which gradually contracted and healed.

In BEZZONICO's case the artificial anus was the result of an inguinal hernia, which had suppurated. The patient, an old woman, æt. 72, first sought medical advice fifteen months afterwards. She was restricted to slops, and after more than a month fæces were passed by the rectum, and came through the wound in smaller quantity. The cure was permanent, and she was dismissed the hospital in nineteen weeks.

SCHMIDT reports a case of crural hernia in a vigorous old woman of seventy. The hernia, as large as a child's head, had been strangulated and operated on eight years before. Having dined largely on beans and potatoes, distressing distension of the stomach ensued during the afternoon, and the hernial tumour became more prominent. In the evening she felt a sudden pain in the belly and hernia, and some fluid ran down her legs. The hernia had burst, and a loop of gut protruded. A desire to go to stool, attended by straining, only led to a further protrusion. Several loops of gut (a portion of ileum and cæcum) were tightly gripped by the rent in the skin. When this had been enlarged with a bistoury, the hernial coverings were found to consist of skin and condensed cellular tissue only. The bowel could not be returned until the gas distending it had been evacuated through a small trocar. Thirteen days afterwards, the patient was able to go about her house-work.

LEGENDRE showed this preparation at the Soc. de Biologie, Oct., 1857. The neck of the sac was one centim. from the femoral vessels in the middle of Gimbernat's ligament. This rare form of hernia was first observed by Langier in 1853, and afterwards by Cruveilhier, Velpeau, Thompson, Deveau, and Mehn.

In ADAMS and WARD's case the sac of the hernia was small, and placed internally to and behind the hydrocele, which extended upwards as far as the inner ring.

DIEULAFOY, referring to the preceding case of Perrin, advances the opinion that in all cases of strangulated inguinal hernia, in which the symptoms persist notwithstanding an apparently successful reduction, an exploration should be made; the inguinal canal should be exposed and examined, even when no swelling can be felt. In proof of its correctness, he narrates three cases in which this

measure was successfully adopted. In each of them, after slitting up the inguinal canal, the sac was found behind the interior ring, drawn down and opened.

PERRIN's case was an old, strangulated, scrotal hernia. Reduction in a warm bath on the fourth day. The inguinal canal free from swelling, but a moveable membranous fold could yet be felt in it. Symptoms unrelieved; death. The sac contained a little serum; the neck, greatly contracted, admitted a goosequill only; it corresponded with the exterior ring. There was a second, narrow sac occupying the whole length of the inguinal canal, and in it a flaccid, brownish-red loop of gut, attached to the sac by recent adhesions.

HARTING says, the hernial tumour, when first seen, consisted of an upper and a lower part, separated by a constriction; the lower could be partly reduced, but not the upper. At the time of the operation, on the third day, this distinction no longer existed. A brownish-red loop of gut outside the external inguinal ring was returned after division of this part, but came down again with every movement of the patient. The symptoms persisted, and death ensued. A large loop of bowel was found in a pouch of the sac formed by the detachment of the fascia transversalis from the transversalis muscle.

DAVIES reports four cases of femoral and two of ventral hernia, treated by invaginating the integument with a metallic suture. One death took place on the fifth day from perforating ulcer of the colon, unconnected with the operation. The other cases were all successful.

He thinks the occasional failure of Wutzer's operation depends on the non-obliteration of the back of the inguinal canal—"the gut slips down behind the plug." This happens because the pressure of the instrument is almost wholly exerted upon the front of the canal. By adopting a plug, the lower part of which expands on turning a handle, and so presses upon the back of the canal, Davies has sought to overcome this cause of failure. He appends an analytical table of forty cases.

LISTER's first patient, a dock-labourer, æt. 56, had had a right, oblique, inguinal hernia eight years. The external abdominal ring was relaxed, and the inguinal canal much shortened. Wutzer's operation was performed, and Rothmund's instrument employed. This was reapplied with a longer needle on the third day, having slipped on account of the shortness of the needle first used. On the

eighth day the instrument was removed, and the adhesions were already strong. One month after the operation there was not the slightest disposition to a return of the hernia.

The second, a labourer, forty-nine years old, had a reducible bubonocoele twenty-four years, on the left side. The same operation was practised as in the previous case. The instrument was discontinued on the tenth day. In both cases a small slough formed round the exit-hole of the needle.

DISEASES OF, INJURIES TO, AND OPERATIONS UPON, THE URINARY BLADDER.

PROLAPSE OF THE VESICAL MUCOUS MEMBRANE.

Patron.—Du renversement de la muqueuse de l'urètre, et de la muqueuse vésicale. Seconde partie. [On Prolapsus of the Mucous Membrane of the Urethra and Bladder.] (Archiv. Gén. de Méd., Dec., 1857.) Canstatt's Jahrb., 1857.

PATRON found only a single example of prolapse of the mucous membrane of the bladder on record. He communicates the following remarkable case:—An otherwise healthy girl, fourteen years old, began two years before to experience difficulty in passing urine; the stream was sometimes broken, and occasionally a few drops of blood flowed with the urine. A year afterwards, she noticed a small, red tumour between the labia, which prevented the escape of the urine, but which disappeared spontaneously after two hours. The tumour soon reappeared, and caused retention, which did not yield till next day on the subsidence of the tumour. At that time, when Patron examined the patient, he found only a relaxed state of the vaginal mucous membrane; but a month afterwards, when the tumour again made its appearance, with great pain, he saw a roundish, smooth, red, bleeding swelling, of the size of a walnut, between the labia majora seated at the meatus urinarius, resembling a swollen hæmorrhoid. It was tense, transparent, and could be returned without difficulty through the urethra into the bladder; the introduction of a catheter at once relieved the retention of urine. Patron diagnosed a prolapse of the vesical mucous membrane, and ordered a decoction of cypress berries for a lotion, cold hip-baths, and iron internally. In spite of this, the vesical complaint progressed; the girl wasted and became

chlorotic. The tumour repeatedly showed itself, and was found to be pedunculated; the peduncle was encircled by the urethra, and a sound could be passed on all sides between them into the bladder. The tumour became swollen when it was not immediately replaced. The vagina was normal. Horizontal position, the introduction of a large catheter, injections of sulphur-water, cauterization of the neck of the bladder, and sea-bathing, all failed. Her general condition grew worse, and periodical accessions of fever, headache, and sickness, set in. To relieve this constant distress, Patron decided to remove this tumour by ligature. The extruded tumour was encircled with a loop of thread, which was tied round the peduncle within the urethra, at the depth of nine centimètres. On puncturing the tumour, a urinous fluid escaped. A thread was then passed through the collapsed tumour, which, together with the instrument, was pushed further into the bladder. The loop was tightened daily; it came away with the instrument on the ninth day. Flakes came away with the urine; and lastly, the shrunken fetid tumour, still eight centimètres long, was expelled. The reaction, at first considerable, gradually decreased; the patient made a complete and permanent recovery. Patron thinks that prolongations of the mucous membrane, when they occur at the neck of the bladder, may give rise to tumours of this kind, which can be distinguished from a prolapse of all the coats by their tensity and transparency.

EPISPADIAS.

Voss.—*Inversio vesicæ urinariæ og Luxationes femorum congenitiæ hoc some Individ.* [Inversion of the Urinary Bladder and Congenital Luxation of the Hips in the same person.] *Christiania*, 1857. (Schmidt's Jahrb., 1858, No. 7, and Virchow's Archiv, vol. xiv, 1 u. 2.) Canstatt's Jahrb., 1859.

The coexistence of congenital luxation of the hips with epispadias constitutes the peculiarity of this case. The child was a female. The umbilicus, as usual, was very low, only one centimètre above the horizontal rami of the pubes. The symphysis pubis was absent.

STONE, LITHOTOMY AND LITHOTRITY.

Statistical Analysis of 177 Lithotomy Operations. *Med. Times and Gaz.*, July 2, 1859.

Wise.—Observations on the History of Lithotomy and on the Treatment after the Operation. *Edin. Med. Journ.*, March, 1859.

Smith.—Clinical Lectures on Lithotomy, delivered in the Leeds General Infirmary, Jan. 1st, 10th, 15th, 22d, 29th, 1859.

Statistical Analysis of 186 Lithotomy Operations, between January, 1854 and July, 1857. *Med. Times and Gaz.*, Jan., 1859.

Adams.—Lithotomy in Children. A Clinical Lecture delivered at the London Hospital. *Lancet*, Jan. 22d, 1859, p. 78.

The Modern Treatment of Stone in the Bladder, and its Results. *Med. Times and Gaz.*, Aug. 20th, 1859.

Different Modes of Performing Lithotomy in the London Hospitals, and a Statistical Analysis of seventeen Lithotomy Cases in Provincial Hospitals. *Med. Times and Gaz.*, July 9th, 1859.

Statistical Analysis of twenty-one Lithotritry Operations. *Med. Times and Gaz.*, 1859, p. 59.

Browne.—A Case of Lithotomy in which Allarton's Operation was performed. *Dub. Hosp. Gaz.*, Feb. 1st, 1859.

Brown.—A Case of Allarton's Operation for Stone. *Lancet*, Jan. 15th, 1859, p. 54.

Wheelhouse.—On three Cases of Median Lithotomy, with Remarks upon the Operation. *Lancet*, May 28th, p. 531; June 4th, p. 551.

Hewitt.—The High Operation for Stone in the Bladder performed upon an original plan, with essential modifications and improvements. *New York Journ. of Med.*, March, 1859.

Bryant.—Remarkable Instance of Misinterpreted Symptoms of Stone in the Bladder. *Med. Times and Gaz.*, 1859, p. 236.

Wormald.—Symptoms of Stone; Passage of Calculous Matter; Death; Calculous Concretion lining the Interior of the Bladder. *Ib.*, Nov. 19th, 1859.

Cutler.—A fine Glass Tube in the Bladder of a Boy. Removal by Lithotomy three years afterwards. *Lancet*, Feb. 15th, 1859, p. 185.

Browne.—Allarton's Operation for a Foreign Body in the Bladder. *Dub. Hosp. Gaz.*, July 15th, 1859.

Roberts.—Vesical Calculus formed upon a piece of Slate Pencil swallowed six months previously. *Med. Times and Gaz.*, July 30th, 1859.

Sautesson.—Formation of Stone around Foreign Bodies in the Bladder. (*Hygeia*, vol. xviii.) *Schmidt's Jahrb.*, vol. 103, No. 8, p. 217.

Coulson.—Extraction of a Thermometer-tube from the Urinary Bladder. *Lancet*, July 2d, 1859.

Wise gives a brief notice of the early history of the operation. The necessity of an improved after-treatment is enjoined, and irritation of the wound by the urine flowing over it is stated to be the cause of death in two thirds of the fatal cases. To remove this

source of danger, Wise suggests—first, the evacuation of the urine before the operation, and its substitution by mucilage; secondly, the drainage of the bladder by a gutta-percha siphon fastened in the wound. The siphon to contain a cotton wick, which is to remove the urine from the bladder by capillary attraction.

The cases reported in the 'Medical Times and Gazette' occurred in London hospitals. Of a total of 186 cases, 146 recovered and 40 died. Twenty-six of the fatal cases were adults; whilst of 137 cases under twenty years of age, only fourteen died. The influence of age on the prospects of lithotomy is strikingly demonstrated by these facts. The rarity of renal complications in children explains the comparatively little risk of the operation at this age; and conversely, the frequent co-existence of kidney disease with vesical calculus in adults accounts for the higher rate of mortality. The heavier the stone, the greater the danger, is a fallacious idea. As a general rule, children have smaller calculi than adults; their immunity, however, does not lie in the smaller size of their calculi, but in their freedom from kidney disease. The tables adduced show that at all ages renal disease is the most important cause of death. Hæmorrhage, pyæmia, and peritonitis, rank next.

ADAMS recommends the use of a beaked knife in dividing the neck of the bladder.

The 'Medical Times and Gazette' draws a comparison between London and provincial practice.

The 'Medical Times and Gazette' report on lithotrity embraces cases treated in London hospitals between January, 1854, and July, 1857. Of these cases—twenty-one in number—twelve recovered and seven died. In five of the seven fatal cases death was caused by pyæmia.

BROWN performed Allarton's operation on a boy, æt. 13, who had had stone symptoms two years. He left the hospital twenty-eight days afterwards. The stone was one and seven eighths inch in its greater circumference, and one and a half inch in its lesser.

BROWN operated by Allarton's method on a boy, æt. 6. The stone weighed 125 grains troy. Hæmorrhage occurred to the extent of a teacupful on the third day, and recovery was complete on the eighteenth.

Two of WHEELHOUSE's cases were children; the third, a man, æt. 57. All recovered.

HEWITT exposed the bladder, previously injected with water through a catheter, by the usual incisions above the pubis. The water was then drawn off, the flaccid bladder, raised on the point of the catheter, was opened, the incision prolonged downwards, and the stone readily removed. The wound in the bladder was closed with four silk sutures, and the external wound was secured with stitches passing deeply through the abdominal muscles. The accumulation of urine in the bladder was provided against by an elastic catheter passed through the urethra. More reaction followed than is common after the usual lateral operation. The bladder acted independently on the fifth day, and the catheter was removed, but some difficulty was soon afterwards experienced by the boy, the bladder became distended, the new adhesions were broken through, and urine flowed out by the side of the ligature. No harm followed; the tracks had already become fistulous. On the tenth day the thread came away. The patient was convalescent on the twenty-first day.

BRYANT'S patient, a pallid lad, *æt.* 17, had had an irritable bladder almost from birth, but had never before been sounded. A large stone, weighing fourteen drachms, was discovered and removed by Bryant. The boy died at the end of a week with symptoms of peritonitis. The left kidney was atrophied, and the right urether much dilated.

In WORMALD'S case, the whole inner surface of the bladder was coated with a mortar-like concretion. The kidneys were tuberculous, and the urethra was ulcerated. The patient, a boy, *æt.* 19, had been ill a year only. On several occasions impaction of the mortar-like matter in the urethra had caused retention of urine.

In CUTLER'S case, the tube, a capillary one, for holding pencil-leads, had been pushed into the urethra by the patient, a boy, *æt.* 12. The calculus which had formed round it was two and a-half inches long.

BROWNE'S patient, *æt.* 50, had passed a bone pin, part of the handle of a crotchet needle, down his urethra a few months before. Phosphates had been deposited around it, and the calculus removed by Allerton's operation by BROWNE measured two and one eighth inches long, and one and a half inch in circumference.

ROBERTS relates a case in which a piece of slate pencil, which had been swallowed six months previously, was two and a half inches long, and bluntly pointed at one end. The calculus which had formed around it was from three and a half to four inches long, by from one and three quarters to two inches wide. It was removed by lithotomy.

SAUTESSON relates that a man fell upon a pointed stake, which ran into his perinæum, just in front of the anus. Shortly after the healing of the wound symptoms of stone in the bladder appeared, and on sounding him two large stones were detected. They were removed by lithotomy, and their nuclei consisted of two large pieces of cloth which had been torn from his trousers.

COULSON's patient had passed the tube as a bougie into the bladder, and it broke whilst trying to withdraw it. The piece, extracted by lithotomy, measured between three and four inches in length.

OPERATIONS FOR STONE IN WOMEN.

Statement of Twenty-four Cases. Med. Times and Gaz., July 23d, 1859.

Gendron.—Spontaneous Escape of two considerable Urinary Calculi, in a Case of Vesico-Vaginal Hernia. (Bull. de l'Acad., vol. xxiv, p. 47, Oct., 1858.) Schmidt's Jahrb., vol. 103, No. 8, p. 218.

McEwen.—Stone in the Bladder of a Female; Fistulous Opening from the Bladder into the Left Groin; Operation; Recovery. (Brit. Med. Journ., Aug. 13th, 1859.)

GENDRON says the stones were discharged through an opening in the wall of the vagina, after long straining. Bladder symptoms had existed during eight years.

In MCEWEN's case the neck of the bladder was occupied by a very large calculus, which obstructed the orifice of the urethra, so that all the urine was passed through the groin. Lithotomy was performed, and a stone weighing two ounces minus eighty grains was extracted; after this a second was discovered; the bladder seemed to be tied around it, and it lay in the right iliac fossa. It was removed with some difficulty. Its weight was one ounce five scruples.

PARACENTESIS AND INJURIES OF THE BLADDER.

Coote, Holmes.—Extravasation of Urine. St. Bartholomew's Hosp. Brit. Med. Journ., Nov. 12th, 1859.

Paget.—On Retention of Urine, Puncture of the Bladder, and Perineal Section. Ib., July 2d, 1859.

Holt.—Puncture of the Bladder through the Rectum. Lancet, Jan. 8th, 1859.

Mercier.—Observation de rétention d'urine, causée par un engorgement de la prostate, datant de neuf années et guérie radicalement. [A Case of Retention of Urine, caused by an Engorgement of the Prostate of nine years' date, and radically cured.] (Soc. Méd. Prat. de Paris, et Union Méd., 1857, No. 154.) Canstatt's Jahrb., 1859.

Tatum.—Stricture and Enlarged Prostate, and Puncture of the Bladder from the Rectum. *Brit. Med. Journ.*, March 5th, 1859.

Gillespie.—A Case of Rupture of the Urinary Bladder. *Edinb. Med. Journ.*, March, 1829.

Cusack.—A Case of Injury of the Urinary Bladder. *Dub. Hosp. Gaz.*, July 15th, 1859.

COOTE's case is interesting, on account of the youth of the patient, a boy, *æt.* 8, and the treatment, which consisted in an incision upon a grooved staff through the prostate into the bladder, just as in the lateral operation of lithotomy. The boy recovered, but subsequently applied with stricture.

PAGET reports three successful cases of puncture of the bladder above the pubes. In twenty-five cases Paget had never seen any bad result, no urinous infiltration, suppuration, nor inflammation. Without previous incision of the integument, &c., he thrusts a well-curved trocar, half an inch or an inch above the pubes, at once into the bladder, the point of the instrument being directed upwards towards the lumbar vertebræ.

HOLT tapped the bladder on account of an impermeable stricture; perineal section had failed.

MERCIER narrates a case in which a prostatic valvule had been repeatedly incised, so that the use of a catheter was no longer necessary. Unfortunately the after-treatment was omitted, and a year and a half afterwards the old symptoms returned; they were greatly aggravated by inappropriate treatment. Phlegmonous inflammation and suppuration took place in the scrotum, and castration of the left testis became necessary. Five years after his first operation Mercier completely overcame the retention by excision of the prostatic valvule. Death occurred some years after from diarrhœa. Two pedunculated tumours were found right and left of the opening of the urethra; they had evidently originally formed a single one. The lateral lobes of the prostate were moderately enlarged.

TATUM's patient, *æt.* 70, was admitted with retention; his urine was dribbling away, but no catheter could be got into the bladder, which was tapped through the rectum. This was repeated a second time, the canula having slipped out. He sank three days afterwards. The kidneys were extensively diseased.

GILLESPIE's patient lived nine days after the injury. A rent, one inch long, involving all the coats of the bladder, was found in its posterior wall.

CUSACK reports a fracture of the pelvis, with extensive laceration of the peritoneum and bladder; extravasation of urine; and death on the third day. Commenting on the fatal nature of this accident, he suggests the advisability of opening the abdominal cavity, washing out the extravasated urine with pure water, and afterwards stitching up the wound in the bladder.

URETHRA.

STRICTURES, CALCULI, INJURIES, ETC.

Flemming.—Clinical Observations on Injuries and Diseases of the Urinary Organs. Illustrated by Cases. Dublin Hosp. Gaz., January 1st, 1859.

Wade.—Practical Observations on the Treatment of Urethral Stricture. Med. Times and Gaz., June 18th and 25th, 1859.

Thompson.—The Value of Internal Incision in the Treatment of Obstinate Strictures of the Urethra. Lancet, Oct. 15th and 22d, 1859.

Thompson.—Two Cases of old-standing Strictures of the Urethra successfully treated by Internal Urethrotomy. Lancet, p. 107, Jan. 29th, 1859.

Leroy d'Etiolles, Pere.—Observation sur un cas de rétrécissement de l'urèthre causé par un rupture de ce canal, et traité par l'uréthrotomie. [Observations on a Case of Stricture of the Urethra caused by Rupture of the Canal, and Treated by Urethrotomy.] (Bull. de l'Acad. de Méd. de Belgique, 2d series, 1, 2.) Canstatt's Jahrb., 1859.

Uytterhoeven.—Nouveau procédé de guérison dans les cas de rétrécissements de l'urèthre infranchissables. [A new Method of Cure in Cases of Impenetrable Strictures of the Urethra.] (Journ. de Méd. de Bruxelles, February.) Canstatt's Jahrb., 1859.

Civiale.—De l'appréciation des principales méthodes de traitement des coarctations de l'urèthre. [On the relative Value of the principal Methods of Treating Strictures of the Urethra.] (Bull. de Thérap., March 15th.)

Civiale.—De l'uréthrotomie interne ou section intra-uréthrale. Aperçu Historique. [On Internal Urethrotomy, or Intra-urethral Section. An Historical Sketch.] (Moniteur des Hôp., 1859, Nos. 138, 140, 144, 145, 148.) Canstatt's Jahrb. 1859.

Boinet.—Nouvel uréthrotome sur conducteur pour pratiquer l'uréthrotomie d'avant en arrière et sans dilatation préalable dans les rétrécissements rebelles à la dilatation. [A New Urethrotome, or a Staff for dividing the Urethra from before backwards, without previous Dilatation, in Strictures which do not yield to Dilatation.] (Gaz. Méd. de Paris, pp. 41—43.) Canstatt's Jahrb., 1859.

Sedillot.—De l'uréthrotomie interne. [On Internal Urethrotomy.] (Gaz. Hebdom., 35, 37, 39, 41; and Soc. de Méd. de Strasbourg, May 6th. Gaz. Méd. de Strasbourg, 6.) Canstatt's Jahrb., 1859.

Heath.—On a Case of Large Calculus removed from the Urethra of a Boy, on whom Lithotomy had been performed five years previously. Med. Times and Gaz., Aug. 27th, 1859.

Henry.—Urethrotomy for Impacted Calculus. Removal of four other Stones from the Bladder. *Ib.*, p. 136, 1859.

Williamson.—A Case of Fistula in Perineo. *Lancet*, Jan. 1, 1859.

Wormald.—Retention of Urine in a Child; Death; Extensive Tuberculosis of the Genito-urinary Organs. *Med. Times and Gaz.*, Nov. 19th, 1859.

Demarquay.—Mémoire sur la contusion et déchirure de l'urèthre; nouveau procédé opératoire pour rétablir la continuité de ce canal. [A Memoir on Contusion and Laceration of the Urethra; a new Operative Procedure to re-establish the Continuity of this Canal.] (*Union Méd.*, 26.) *Canstatt's Jahrb.*, 1859.

Blondeau.—Obstruction traumatique de l'urèthre. [Traumatic Obstruction of the Urethra.] (*Bull. de la Soc. Anat.*, July, 1857.) *Canstatt's Jahrb.*, 1859.

FLEMMING illustrates the dangers of forcible and unskilful catheterism by two cases of extravasation of urine following the formation of false passages, and narrates the case of a child with remittent fever who had complete retention of urine during twenty-four hours. The urine contained a flocculent precipitate, probably lithate of ammonia. Its scrotum and prepuce were much swollen. Some cases of retention of urine from the impaction of calculi in the urethra are also described. In one very violent hæmorrhage was produced by a fragment of calculus sticking in the prostatic portion of the urethra.

WADE gives a critical examination of the various modes of dilatation and division, with remarks on the use of *Potassa fusa*.

THOMPSON advocates the treatment of stricture by incision in those exceptional cases in the management of which dilatation proves only a slight palliative. These cases fall into two series—first, long, unyielding strictures, of many years' duration; second, dilatable, but resilient strictures, which are ameliorated temporarily by dilatation, but which recur in an aggravated form. In the first series of cases incision meets the existing evil; in the second series it is used with the additional object of preventing the accession of those bladder and kidney affections which tend to shorten life in severe stricture. The complete division of the stricture is essential to success. Internal division is only applicable when the indurated tissue does not require a deep incision for its complete division; when it does, external urethrotomy is the less hazardous operation. The unyielding character of certain strictures seems to be developed in proportion to their nearness to the external orifice of the urethra. Internal incision should not be performed unless an instrument of some size can be passed through the stricture into the bladder.

The incision should be made from behind forwards, and great care should be taken to divide the whole length of the contracted part. This is absolutely essential to success, and the lips of the wound are to be maintained apart, and healing by first intention prevented by subsequent catheterism. The non-dilatability and contractility of a stricture, and not its mere narrowness, constitute its gravity. Thompson has generally employed Civiale's urethrotome, the bulb of which nearly equals No. 5; for smaller strictures, Thompson figures an instrument of his own contriving. From notes of forty-two cases, he says, that in two only in which incisions were made in the bulbous portion of the urethra was there free hæmorrhage; and in all the other cases it was slight. He had never seen perineal abscess, extravasation, or pyæmia, follow incisions of the kind he recommends.

LEROY reports a case of traumatic stricture, which was twice treated by division through the perinæum; a relapse, attended by threatening symptoms, followed each operations which was the "boutonnière" performed without a guide.

UYTTERHOEVEN has added a sort of cutting cork-screw to Civiale's scarificator. He has employed this modified instrument with advantage in one case of impenetrable stricture.

CIVIALE draws a parallel between the principal modes of treatment, and defends the internal division of strictures, because it is simple and certain to divide the morbid tissue without touching the healthy, and because the wounds, not being exposed to the air, heal without suppuration or general symptoms.

BOINET had used seven times, with success, a slight modification of Bonnet's *scarificateur perforé*.

SEDILLOT figures Maisonneuve's instrument with the improvement that the blade is concealed during its passage to the stricture. He does not employ dilatation with the bougie afterwards, and considers the patient cured directly, in proof of which he reports eleven successful cases. The first of these were operated on two years ago, and in none has a relapse taken place.

HEATH says the calculus, impacted in the urethra, formed a tumour of the size of a walnut, in the median line at the back of the scrotum. It was removed through an external incision, and resembled the head and beak of a bird; it measured rather more than two inches in length, and rather less than one inch and a quarter across.

HENRY removed a stone impacted in the membranous portion of the urethra, producing retention of urine, through an incision between the scrotum and anus. It was pyramidal, and about the size of a bean, and had polished facets. Four other stones, of similar shape and size, were extracted from the bladder through the same opening.

WILLIAMSON relates a case of gonorrhœa with abscesses in perineo communicating with the urethra; urinary fistulæ. He performed the external section; perfect recovery ensued.

WORMALD'S patient, an emaciated child, nine years old, was brought to the out-patient room, complaining of pain in the lower part of the belly. Three days afterwards the bladder was found to be distended; there was some dribbling of urine, and a circumscribed extravasation into the perinæum. This was at once incised, and the bladder was emptied with a catheter; no obstruction of the urethra was encountered. The child gradually fell away, and died in three weeks. Both kidneys were found to be totally disorganized by tuberculous deposit. The ureters were filled with tuberculous matter, and the prostate riddled with tuberculous abscesses. In front of the bulb an abscess, from tubercle beneath the mucous membrane of the urethra, had burst and given rise to the extravasation. The lungs and mesenteric glands contained large deposits of tubercle.

DEMARQUAY'S patient, twenty-five years old, had complete division of the urethra, in consequence of a contusion of the perinæum and subsequent suppuration. The ends of the divided canal were two fingers' breadth apart. No instrument could be passed into the bladder. Demarquay made a curved incision across the perinæum, as in the bilateral operation for stone, and cut through the tissues, layer by layer, till he reached the spot where the end of the canal ought to be; he then drew downwards the anterior wall of the rectum and found the opening by desiring the patient to micturate. He now passed a small, flexible bougie through it into the bladder, and pushed its anterior extremity through the front part of the urethra. Over this bougie he slipped a large catheter into the bladder. Four months afterwards the cure was perfect.

BLONDEAU'S case, a boy, nine years old, got retention of urine from a fall upon the perinæum, which was relieved by puncturing the bladder above the pubis. Guersant passed a catheter through the abdominal fistula into the bladder, and so along the posterior

portion of the urethra, till he encountered the obstruction in the membranous portion. The end of the catheter was cut upon, and through this opening a pointed director was thrust through the obliteration. The vesical end of a large catheter was passed through the wound backwards into the bladder, and its free end passed forwards through the penis. The abdominal and perineal fistula closed, and the boy recovered.

DISEASES OF THE TESTICLE, SPERMATIC PASSAGES, PENIS, AND SCROTUM.

Godard.—Etudes sur la monorchidie et la cryptorchidie chez l'homme, avec quatre planches et figures dans le texte. [Researches in Monorchidism and Cryptorchidism in Man, with four plates and figures.] *Paris*, 1857. *Canstatt's Jahrb.*, 1859.

Atrophy of the Testicle after an Operation for Hernia on an Infant. *Med. Times and Gaz.*, 1859, p. 291.

Holthouse.—Epilepsy for thirty-two years in a Man, aged forty-four, with Discoloration of the Skin from Nitrate of Silver; Castration. *Lancet*, Jan. 22d, 1859.

Report on Malignant Disease of the Testis. *Med. Times and Gaz.*, Sept. 10th and 17th, 1859.

Tabular Statement of thirty-six Cases of Malignant Disease of the Testis. *Ib.*, Sept. 17th, 1859.

De Meric.—Fungus of the Testis in Syphilis. *Lancet*, March 19th, 1859.

Curling.—Malignant Cystic Disease of the Testicle, the Cysts containing Cancer-cells, Cholesteatoma, and Bone; Successful Removal. *Ib.*, Sept. 10th, 1859.

Rogers.—Des oblitérations des voies spermatiques et de la rétention spermatique. Thèse p. l. d. [On the Obliterations of the Spermatic Passages and the Retention of the Semen.] *Paris*, 1857. *Canstatt's Jahrb.*, 1859.

Pitha.—Galvanokaustische Heilung der Varicocele nebst praktischen Bemerkungen über diese Krankheit. [The Galvano-caustic Treatment of Varicocele, with Practical Remarks upon this Disease.] Vortrag gehalten in der Sitzung der Section für Therapie, April 23, 1858. (*Zeitschr. der k. k. Gesellschaft d. Aertze zu Wien.*, Nos. 20, 21.) *Canstatt's Jahrb.*, 1859.

Lee.—Case of Varicocele treated by Subcutaneous Section of the Veins. *Brit. Med. Journ.*, Feb. 5th, 1859.

Nelaton.—On Varicocele. (*Gaz. des Hôpit.*, No. 88, 1858.) *Schmidt's Jahrb.*, No. 4, 1859.

Gillespie.—New Treatment of Hydrocele. *Med. Times and Gaz.*, Sept. 10th, 1859.

Young.—New Treatment of Hydrocele. *Ib.*, p. 207.

Quinlan.—On the Radical Cure of Hydrocele by the Introduction of Iron Wire. *Dublin Hosp. Gaz.*, April 1st, 1859.

Very.—De l'hydrocele de la tunique vaginale, et de la cure radicale par un nouveau procédé. [On Hydrocele of the Tunica Vaginalis, and of its Radical Cure by a New Method.] *Paris*, 1858, These. *Canstatt's Jahrb.*, 1859.

Report on Amputation of the Penis for Epithelial Cancer. *Med. Times and Gaz.*, Oct. 1st, 1859.

Walton.—Elephantiasis of the Scrotum—Operation and Result, with Remarks. *Ib.*, Aug. 6th, 1859.

GODARD gives a complete account of the undescended testis, and all the circumstances associated with this condition. He states, that undescended testis does not secrete spermatozoa.

HOLTHOUSE castrated an epileptic patient, but the fits continued afterwards.

The 'Medical Times and Gazette' gives a summary of the cases which have been recorded in this journal during the last six years.

DE MERIC points out the rarity of this complication of syphilis, and reports a case in which he had removed the protruded fungus and degenerated testis. A similar case is quoted from Rollet.

In CURLING'S case the cysts were numerous, and varied from one eighth to one inch and a quarter in diameter. Some meshes of the tumour were filled with colloid, others with encephaloid matter.

ROGERS classifies the causes of obliteration of the seminal passages under—1. Anomalies of development; 2. Wounds; 3. Inflammation; 4. Compression; 5. Calculi; 6. Tuberculosis; 7. Degeneration of the walls of the canal. Obliterations from the first cause are very rare; they are explained by the separate development of the testis and its excretory duct. The author thinks, that many cases of irritable testis (Cooper) depend on retention of semen in consequence of obstruction of the duct.

PITHA first encircles the bundle of enlarged veins with a strong platinum wire, which he then heats with a galvanic battery and cuts them through. He does this at two points. The section is easy, and the divided surfaces as smooth as if made with a sharp knife. There is no hæmorrhage.

LEE having passed two needles three-quarters of an inch apart beneath the dilated veins divided them subcutaneously between the needles. The principle being, to allow the cellular connections on each side to form a vascular union across the divided vessels.

NELATON in most cases advocates palliative treatment by an india-rubber ring. The testis should be pushed upwards towards the abdominal ring, the dependent portion of scrotum, emptied by pres-

sure and encircled by the ring, the ends of which are to be made fresh, in order that they may join. Nelaton says he had often made cures in this way.

GILLESPIE relates two cases of hydrocele which he had treated by the wire-seton. Suppuration ensued in both cases.

YOUNG records two cases of hydrocele of the tunica vaginalis which he treated successfully with a seton of fine iron wires.

QUINLAN treated a case with a seton of eight threads of iron wire. The inflammation was as great as usually follows the treatment by iodine-injection, which he had undergone two years previously for a hydrocele of the left side.

DEPER, adopting Metz's proceeding, caustics lightly the interior of the tunica vaginalis with sulphate of silver, introduced upon a probe through an ordinary trocar. He reports ten successful cases.

The 'Medical Times and Gazette' report contains particulars of thirty-five cases.

WALTON reports a case of elephantiasis, where the scrotum weighed eight or nine pounds. He removed as much of it as he could, having provided against hæmorrhage by previously tying the parts beyond the line of the intended incisions. The patient made an excellent recovery.

WOUNDS, AND DISEASES OF THE BLOOD-VESSELS.

Porter.—Case of Penetrating Wound of the Abdomen. Division of the Left Renal Artery. *Dublin Hosp. Gaz.*, April 1st, 1859.

Patterson.—Aneurism of the Left Internal Carotid Artery. *Edinb. Med. Jour.*, Feb., 1859.

Stanley.—Ligature of the Common Carotid, on account of Hemorrhage following the Puncture of an inflamed Tonsil. *Med. Times and Gaz.*, 29th Oct., 1859.

Stanley.—Axillary Aneurism of Seven Months' Growth in a Soldier; Deligation of the Subclavian Artery in the third part of its course; Death on the third day. *Lancet*, p. 55, July 15th, 1859.

Clarke (Le Gros).—Successful Deligation of the Subclavian Artery for Aneurism of the Axillary Artery. *Med. Times and Gaz.*, April 9th, 1859, p. 365.

Clarke (Le Gros).—Axillary Aneurism; Ligature of the Subclavian Artery; Death; Autopsy. *Ib.*, 1859, p. 237.

Green.—Femoral Aneurism in a Man, seventy-five years of Age, cured by Pressure. *Brit. Med. Journ.*, 1st Jan., 1859.

Teale.—Popliteal Aneurism treated by Compression and Manipulation. *Med. Times and Gaz.*, 1859, p. 265.

Childs.—Popliteal Aneurism treated by Compression. *Ib.*, 1859, p. 59.

Bone.—On a Case of Aneurism of the Right Popliteal Artery, terminating in Recovery without Ligature of the Vessel. *Lancet*, p. 314, March 26th, 1859.

Pemburton.—Aneurism of the Popliteal Artery successfully treated by Flexions and Compression. *Ib.*, 3d Sept., 1859.

Ward.—Aneurism of the Right Popliteal Artery; Compression Treatment; Sloughing over the Artery; Ligature; Recovery. *Med. Times and Gaz.*, 1st Oct., 1859.

A Case of Popliteal Aneurism; Ligature of the Femoral Artery; Return of the Disease; Amputation. *Brit. and For. Med.-Chir. Rev.*, April, 1859.

Bulteel.—Wound of the Femoral Artery near its Termination; Single Ligature in Scarpa's Triangle; Recovery without Secondary Hæmorrhage.

Hawkins.—Rupture of the Popliteal Vessels; Amputation. *Brit. Med. Journ.*, 29th Jan., 1859.

PORTER relates that a woman was stabbed in the left side of the belly, and fatal collapse rapidly ensued. The weapon went through the cartilages of the false ribs; transfixed the stomach and divided the left renal artery. The cavity of the belly was filled with blood, but none was found in the stomach.

PATTERSON says a sempstress, æt. 47, was seized with slight paralysis of the right arm on the 10th of July, during two or three weeks previously vision had been much impaired; on the 27th she had sudden coma, next day the left pupil was exceedingly contracted, and the right dilated. Death at nine A.M. on 29th. The fissure of Sylvius and left cerebral hemisphere were covered with a layer of semi-coagulated blood. A small aneurism of the internal carotid artery was found close over the optic foramen, and the hæmorrhage had flowed from a rent in its posterior wall.

STANLEY's patient, a delicate man, twenty-four years old, had a puncture made in his left tonsil which was inflamed. Considerable bleeding ensued, but he was able to walk home. On the fourth night, bleeding to about a pint occurred; it was arrested by the solid nitrate of silver. On the following morning, between ten and two o'clock, another loss of florid blood to one and a half pint. Ice was applied, and during the next twenty-four hours very little blood was lost; but then a fourth hæmorrhage took place, and after a consultation, Stanley put a ligature upon the common carotid artery.

STANLEY's deligation of the subclavian artery occupied fifty-eight minutes. At the autopsy diffuse suppuration of the cellular tissue of the neck, extending to the ant. mediastinum, was found, and the right pleural cavity contained one and a half pint of curdy serum.

In CLARKE's case the aneurismal tumour was as large as a small billiard ball; its pulsation could be stopped by pressure on the

artery above the collar-bone, and it immediately ceased when the vessel was tied. The ligature separated on the nineteenth day, and the patient recovered rapidly.

CLARKE's second patient, æt. 40, was an engineer, of dissipated habits. The aneurism occupied the upper part of the axilla. It seemed to have commenced four or five months before, suddenly, whilst at work. The subclavian artery was tied in the third part of its course. No chloroform was given. Secondary hæmorrhage occurred on the fourteenth day, and recurred several times on the three following days, the patient dying on the fourth. *Sectio cadaveris*.—The subclavian artery was completely divided. The ends, half-an-inch apart, and both open, the proximal without any clot; but the distal end, one inch distant from the aneurism, contained a semifluid clot. Semifluid blood surrounded the end of the vessel and filled the clavicular triangle. The sac was thin and contained but little clot.

In GREEN's case, the tumour, the size of a small hen's egg, was at the lower end of the superficial femoral artery. Pressure was made with two pear-shaped leaden weights over the upper part of the vessel. A complete cure was obtained.

TEALE treated an oval aneurism, about the size of a small lemon, in the left ham by digital compression of the femoral artery against the pubes, from the 26th to the 30th of October, during twelve hours each day. After this date, a ring tourniquet was applied. The swelling became a little smaller, harder, and pulsation was less strong. November 12th and 14th, Teale manipulated the sac, with a view to disturb the fibrine within it; and, an hour and a half after the last manipulation, pulsation ceased, and the tumour had become solid.

CHILD's patient was young and healthy. The aneurism at first filled the ham, bulged prominently, and pulsated vigorously. After one week's compression, the tumour had considerably solidified, and a favorable result was expected.

BONE's patient, æt. 37, was in broken health from long service in the East Indies. The aneurism was recent. The treatment consisted in compression and the exhibition of salines.

PEMBERTON treated a case by light pressure upon the middle third of the femoral artery with a tourniquet, the leg being flexed upon the thigh. In twelve hours the tumour had become hard and perfectly free from pulsation, and a perfect cure resulted.

WARD's patient, a coal-whipper, æt. 51, had noticed the swelling the ham for one month before his admission. Pressure was applied alternately with a meat-weight and Bigg's instrument. Notwithstanding great care, on the fourth day, the skin over the artery, at the lower quarter of Scarpa's triangle, begun to slough; and when the eschar fell away, an inch and a-half of the artery could be felt at the bottom of the wound covered by sloughy connective tissue. Granulation commenced, and on the fourteenth day after separation of the slough, the artery was tied in two places—above and below the wound; the distance between the two ligatures was two inches and a-half. Good recovery.

The 'British and Foreign Medico-Chirurgical Review' contains a case of popliteal aneurism—a quarryman, æt. 24. The aneurism increased rapidly, inflamed, and suppuration impended. The femoral artery was tied, with immediate relief—locally and constitutionally. Thirty-one days afterwards, when he left the hospital, the tumour had disappeared, except at the upper and inner part of the ham, where it was about as large as an egg. Some months afterwards, it enlarged again, and burst into the knee joint, when amputation was performed. Death followed on the fifth day.

In BULTEEL's case the femoral artery was wounded near its termination with a gouge. Profuse hæmorrhage took place, and life was nearly extinct. Deligation of the vessel in Scarpa's triangle, four inches above the wound was preferred to searching for, and tying the vessel at the wound. No secondary hæmorrhage. Recovery.

HAWKINS' case is a machinery accident, followed immediately by great ecchymosis and swelling of the ham, with great pain. Fourteen days afterwards, gangrene of the leg having occurred, amputation through the lower third of the thigh was performed. The artery and vein were both found torn across, and the ends were about one inch and a half apart.

DISEASES AND INJURIES OF THE BONES AND JOINTS.

Stone.—Cases of Acute Necrosis followed by Pyæmia. *Med. Times and Gaz.*, 16th and 23d Jan., 1859.

Curling.—Practical Clinical Remarks on Acute Periostitis. *Lancet*. Sept. 3d, 1859.

Klose.—Die Epiphysentrennung, eine Krankheit der Entwicklungszeit. [On the Separation of the Epiphyses, a Disease of the Period of Development.] (*Prager Vierteljahresschrift*, vol. i.) *Canstatt's Jahrb.*, 1859.

Goselin.—Mémoire sur les ostéitis epiphysaires des adolescents. [Memoir on Inflammation of the Epiphyses in Youth.] (*Archives Gén. de Méd.*, Nov.) *Canstatt's Jahrb.*, 1859.

Bouisson.—Considération sur quelques tumeurs pulsatiles des Os. [An Investigation of some Pulsating Tumours of Bone.] Thèse, *Paris*, 1859. *Canstatt's Jahrb.* 1859.

Meier.—Pulsating Tumour of the Bones of the Right Side of the Pelvis; Ligature of the common Iliac Artery. (*Deutsche Klinik.*, 47, 48, 1858.) *Schmidt's Jahrb.*, No. 7. 1859.

Bowman.—Medullary Tumour of the Clavicle; Successful Removal of the outer half of the Bone. *Lancet*, Feb. 5th, 1859.

Flower.—Fibrous Tumour of the Scapula, expanding beneath the Bone, and projecting into the Axilla; Successful Removal. *Lancet*, July 16th, 1859.

Hamilton.—Cases of Diseases of the Bones requiring Operation. *Dublin Hosp. Gaz.*, 1st and 15th June, 1859.

Weber.—Ueber die Veraenderungen der Knorpel in Gelenkkrankheiten. [On the Changes in the Cartilage in Diseases of the Joints.] (*Virchow's Archiv*, vol. xiii, part 1.) *Canstatt's Jahrb.*, 1859.

Bonnett.—New Methods of treating Diseases of the Joints. An Exposition and Demonstration given at Paris, 1858. J. Baillière and Son. *Paris*, 1859. *Schmidt's Jahrb.*, No. 8, 1859.

Bonnett.—Immediate Stretching and Cauterization beneath a Starch Bandage in the Treatment of Inflamed Joints. (*Gaz. des Hôp.*, 90, 1858.) *Schmidt's Jahrb.*, No. 3, 1859.

Bryant.—Clinical Lectures on Diseases of the Joints, delivered at Guy's Hospital. *Lancet*, pp. 128—155, 1859.

Bryant.—On some of the Injuries and Diseases of Joints; illustrated by Cases from Guy's Hospital. *Med. Times and Gaz.*, April 2d, 1859.

Skey.—Practical Clinical Remarks on Hysterical Affections of the Joints, delivered at St. Bartholomew's Hospital. *Lancet*, March 12th, 1859.

Gjor.—On the Formation of Callus. (*Norsk Magazin*, vol. ii, parts 1 and 2.) *Schmidt's Jahrb.*, No. 7, 1859.

Lawson.—Case of Fractured Femur in a Child, and Post-mortem Examination of the Bone eight weeks after the Injury. *Med. Times and Gaz.*, Feb. 19th, 1859.

Fergusson.—Ununited Fracture of the Thigh; Three Operations without benefit; Amputation. *Ib.*, July 9th, 1859.

Kinlock.—Surgical Cases. *Amer. Journ. of Med. Sciences*, July, 1859.

- Sunborn.**—Successful Treatment of a Case of Ligamentous Union of Fractured Radius and Ulna by Drilling and Wiring, after failure of other means. *Ib.*
- Morgan.**—Fracture of the Neck of the Femur in a Young Man. *Med. Times and Gaz.*, p. 137, 1859.
- Adams.**—Fracture of the Neck of the Femur in a Young Man; Delayed Union. *Ib.*
- Corner.**—Separation of the lower Epiphysis of the Tibia and Fibula; Reduction. *Ib.*
- Adams.**—Separation of the lower Epiphysis of the Tibia and Fibula. *Ib.*, p. 163, 1859.
- Costes.**—On Emphysematous Tumours upon the Skull. (*Journ. de Bord.*, Oct., Nov., Dec., 1858.) *Schmidt's Jahrb.*, 1859.
- Lunn.**—Compound Fracture of the Skull; Trephining. *Med. Times and Gaz.*, July 23d, 1859.
- Curling.**—Compound Fracture of the Skull; Use of the Trephine; Death on the seventeenth day from Rupture of the Renal Vein. *Lancet*, 1st Jan., 1859.
- Murney.**—A Series of Cases of Injuries to the Head. *Belfast Chir. and Med. Soc. Dub. Hosp. Gaz.*, March 1st, 1859.
- Birkett.**—Compound Fracture of the Skull by a Hatchet, with Hæmorrhage; Removal of loose Bone, and exposure of the Dura Mater; Recovery. *Lancet*, July 9th, 1859.
- Report on Tumours of the Jaws, and their Operative Treatment. *Med. Times and Gaz.*, Sept. 3d, 1859.
- Nussbaum.**—Ein Knochenabscess im Unterkiefer. [A Bone-Abscess in the Lower Jaw.] (*Bayer. Aerzt. Intelligenzblatt*, No. 2.) *Canstatt's Jahrb.*, 1859.
- Coote (Holmes).**—Necrosis of the Lower Jaw from the Fumes of Phosphorus; Complete Removal of the Bone; Recovery. *Lancet*, July 2d, 1859.
- Quinlan.**—Disease of the Upper Jaw; Removal; Recovery. *Dublin Hosp. Gaz.*, 1st July, 1859.
- Berend.**—Discussion sur les injections iodées dans le traitement des alterations osseuses ou articulières, et des absces qui en dependent. [An Inquiry into the use of Iodine Injections in the Treatment of Bony or Articular Changes, and the Abscesses which result from them.] (*Gaz. des Hôp.*, Nos. 9, 12, and 16.) *Canstatt's Jahrb.*, 1859.
- Birkett.**—A Series of Cases of Injury of the Spine. *Brit. Med. Journ.*, March 26th, 1859.
- Broca (Paul).**—On the Two principal Forms of Pott's (spinal) Disease. *Gaz. des Hôp.*, 42, 43, 48, 53, 1858.) *Schmidt's Jahrb.*, vol. 102, No. 5, 1859.
- Fergusson.**—Excision of the Head of the Humerus. *Med. Times and Gaz.*, March 5th, 1859.
- Bryant.**—Disease of the Shoulder-joint; Resection of the Head of the Humerus; Recovery. *Ib.*, 20th Aug., 1859.
- Bryant.**—On some of the Injuries and Diseases of Joints, as illustrated by Cases from Guy's Hospital. *Ib.*, 14th May, 1857.
- Skey.**—Clinical Lecture on Cases of Compound Fracture and other Injuries about the Shoulder-joint. *Lancet*, April 23d, 1859.
- Erichsen.**—A Lecture on Sacro-Iliac Disease, delivered at University College Hospital. *Ib.*, Jan. 8th, 1859.
- Price.**—Contributions to the Surgery of Diseased Joints, with especial reference to the Operation of Excision. No. 1. The Knee. Pamphlet. *London*, John Churchill.

- Solly.**—Clinical Lecture on Excision of the Knee-joint. April 2d, 1859.
- Watson.**—On Excision of the Knee-joint. Glasgow Med. Journ., Oct., 1859.
- Erichsen.**—Strumous Disease of the Knee-joint, with deposition of Tubercle in the Osseous Structures; Excision; Death from Erysipelas. Lancet, April 9th, 1859.
- Erichsen.**—Excision of the Knee. Brit. Med. Journ., March 5th, 1859.
- Fergusson.**—Excision of the Knee-joint with a single Incision. Ib., Feb. 26th, 1859.
- Craven.**—Excision of the Knee-joint; Subsequent Amputation; Death. Med. Times and Gaz., July 30th, 1859.
- Kinlock.**—Resection of the Knee-joint for Disease of the Synovial Membrane and Cartilages, in a Patient fifty-eight years of age. Amer. Journ. of Med. Sciences, July, 1859.
- Lister.**—Excision of the Patella. Brit. Med. Journ., Sept. 10th, 1859.
- Adams.**—Practical Clinical Remarks on Surgical Openings into the Knee-joint. Lancet, Aug. 13th, 1859.
- Coulson.**—Penetrating Wound of the Knee-joint in a Girl, with escape of Synovial Fluid; Successful Treatment by Irrigation. Lancet, Jan. 8th, 1859.
- Hodge.**—A Case of Hydrarthrosis of the Knee-joint treated by Tapping and Iodine externally. Ib., Jan. 29th, 1859.
- Erichsen.**—Practical Clinical Remarks on Diseases of the Tarsus. Lancet, June 18th, 1859.
- Stillman.**—Extensive Caries of the Os Calcis cured by Operation. Ib., April 16th, 1859.
- Hancock.**—Practical Clinical Remarks on Resection of the Ankle-joint. Ib., Oct. 1st, 1859.
- Hancock.**—Excision of the Ankle-joint in a Child for extensive Disease; Recovery with a Useful Foot. Ib., April 9th, 1859.

STONE describes three cases of very acute necrosis of large bones, terminating fatally from pyæmia.

CURLING advocates the treatment of acute periostitis of deep-seated bones by early and free incisions, and illustrates its advantages by successful cases.

KLOSE describes under this title acute inflammation, commencing in the medullary-membrane, extending to the periosteum, and terminating in the separation of the diaphysis from the epiphyses. In the first stage of the disease, dissection shows hyperæmia of the medulla with scattered apoplectic extravasations, and exudations under the periosteum which partially sloughs. Subsequently suppuration takes place, and the epiphysis becoming soaked with pus, its connection with the shaft is loosened. Death takes place from exhaustion or pyæmia.

GOSSELIN shows Klose's "Epiphysentrennung" to be identical with Chassaignac's "Osteomyelitis," but considers both names objectionable; the first because it only indicates the consequence

and not the nature of the disease ; the second because it has been hitherto applied to quite another affection. Gosselin agrees with Klosse's remarks on the absence of oil from the pus, a sign upon which Chassaignac insists. Gosselin describes two forms—the one acute and suppurating, the other chronic and unattended by the formation of pus.

BOUISSON says the characteristic sign of these tumours which have been also termed “Erectile bony tumours,” and “aneurisms by anastomosis,” is the union of cancerous and vascular elements. The cancellous tissue is always their primitive seat, the compact tissue is only secondarily implicated. They have an especial preference for the head of the tibia. The existence of true aneurism of bone without cancer is doubtful, and, at all events, extremely rare. Pulsating tumours begin beneath the periosteum, or within the bony tissue which they expand and destroy. They never attack articular cartilages, and when they break into a joint it is by an extension along the synovial membrane. The author shows from six cases, treated by deligation of the main vessel of the limb on which the tumour was seated, that this mode of treatment is useless, and recommends early amputation before the establishment of a cancerous diathesis.

MEIER relates that the iliac fossa was filled with a firm, pulsating swelling which also extended downwards beneath Poupart's ligament, and occupied the whole buttock. In some parts obscure fluctuation was felt. The whole swelling pulsed synchronously with the heart's impulse, and the pulsation was attended by a bellows'-sound. The neck of the femur was broken. A pulsating bony tumour, “aneurism of the arteries of bone,” was diagnosed. Deligation of the art. iliaca com. was practised as the only means of checking the destructive process in the pelvis. Directly the vessel was tied the tumour ceased to pulsate and diminished very considerably. On the following day gangrene commenced in the foot and leg ; it involved the whole limb, the wound also became gangrenous, and death took place on the thirteenth day after the operation.

In FLOWER's case the tumour formed a rounded projection in the armpit, which was quite independent of the humerus, but followed the movements of the scapula. During its removal it was found to extend as a broad, thin lamella, between the ventral surface of the scapula and the ribs, nearly to the dorsal border of

the bone ; it was not connected with the axillary margin, as had been previously supposed.

HAMILTON reports three cases of exostosis ; one of the metatarsal bone of the great toe, the other two of the humerus.

One of WEBER's principal objects is to explain the intracellular production of pus and the formation of vessels in diseased articular cartilage.

BONNETT recommends the treatment of white swellings by immediate extension and cauterization beneath a plaster-bandage ; the employment of an exercising apparatus in distortions of the trunk, and the embarrassed respiration dependent on them ; and the treatment of chronic disease of the hip-joint. Bonnett points out the difference between traumatic luxations and those which result from strumous diseases of the joints. In coxalgia there are two principal positions, in one of which the thigh is commonly placed. It is flexed and turned outwards, in which case it appears to be lengthened ; or turned inwards, when it seems to be shorter than natural. Bonnett's plan consists in the forcible rupture of the adhesion, under chloroform ; the limb is rotated, flexed, and extended during a quarter or half a hour ; the adductors, flexors, and extensors are to be cut, if resistant. The limb is afterwards to be retained in a proper position by plaster of Paris bandages. When bony ankylosis is present, or when the scars of numerous healed fistulæ indicate a too strong fibrous union, this treatment is inapplicable.

BONNETT advocates immediate forcible extension in all deformities of joints, unaccompanied by organic changes (?). The limb is to be immoveably fixed for several weeks afterwards. Bonnett treats subsequent inflammation by cauterization, beneath a starch bandage, with caustic potash or chloride of zinc. The application is almost painless, and the suppuration very slight.

BRYANT's article embraces dislocations and fractures of the phalangeal joints. Mr. Bryant shows that however praiseworthy the general rule to save as much of the thumb and finger as possible, yet this rule has its limits. Two cases of luxation of the ungual phalanx backwards and one forwards are narrated. In compound dislocations of the last phalanx backwards the projecting head of the second phalanx was removed when the reduction could not be otherwise performed. Early motion was enjoined to favour the formation of a moveable joint, but this result was not usually obtained.

SKEY thinks that in three fourths of the cases of diseases of the knee-joint occurring in young women, from fifteen to twenty-five, the traces of hysteria are more or less palpable. Local sedatives in the form of strong solutions of opium are valuable, and should be freely used.

GJÖR's prize essay at the University of Christiana contains an historical sketch of the views respecting callus which have prevailed from the time of Galen, and investigations into the nature of the process.

LAWSON's patient, a child *æt.* 9 months, had fallen on a fender six weeks previously. The plaster of Paris bandage was used. Death was caused by pneumonia. The shaft of the femur had been broken about the middle. The medullary canal was obliterated at the seat of fracture, and the broken ends were ensheathed by a ferrule of provisional callus.

FERGUSSON's patient broke his thigh at sea. The bones were badly set, and united in such a bad position that when he reached port the surgeons, under whose care he came, advised him to have it re-broken. This was done, but re-union did not take place. Subcutaneous scraping of the ununited ends of the bone; partial re-section of them, and ivory pegs put in them, had failed to produce union; the limb was, therefore, removed.

KINLOCK's case was an oblique fracture of the body of the lower jaw, just in front of the masseter muscle. The broken ends overrode, and could not be kept in position by the usual means; but each having been perforated by a fine drill, they were tied together with a strong silver wire. Rapid union ensued.

SCULBORN having unsuccessfully used the seton, subcutaneous laceration, and drill, one year after the accident, laid bare the fracture of the radius, pierced the broken ends with a small gimlet, carried a piece of stout silver wire through the holes, and twisted its ends tightly together; it was subsequently tightened and union ultimately took place. A similar operation was performed upon the ulna with an equally good result.

MORGAN's and ADAMS' patients were lads, *æt.* 17 and 19, and in both firm union took place.

CORNER's patient, a boy, *æt.* 14, fell from a cart and his foot turned inwards. The signs resembled those of luxation of the foot backwards.

ADAMS's patient was a boy, æt. 14. Reduction was difficult, but firm union was obtained.

COSTES has made a collection of recorded cases of emphysematous tumours on the skull, with remarks. These rare tumours occur in the temporal region and are due to erosion of the outer table of the mastoid process, which permits the escape of air from the mastoid cells and from the tympanum. The characteristic signs are crepitation and tympanic resonance, and the tumour disappears when compressed. The surface of the subjacent bone becomes irregular.

LUNN's patient, a boy, æt. 10, fell down the hold of a vessel and fractured his skull. Symptoms of cerebral irritation having set in, a portion of bone was removed with Hey's saw. Hernia cerebri followed, and after death. About four ounces of pus were found under the dura mater.

CURLING's patient had a fracture in the right frontal region, lozenge-shaped, about three quarters of an inch broad. It was caused by the kick of a horse. The patient, an ostler, æt. 40. The trephine was applied the following day, and the depressed bone was raised. No symptoms of compression had occurred; convulsions and death on the seventeenth day. Nearly the whole left side of the belly was found filled with blood, which had been poured out from a rupture of the left renal vein, near its union with the lower cava.

MURNEY's series comprises three cases of fracture of the base of the skull and one of fracture of the parietal bone. In two the middle meningeal artery was torn; and in two rupture of the kidney happened, one of which recovered.

KIRKET removed several large portions of bone and other smaller pieces exfoliated. The patient left the hospital in six months with the wound quite healed.

The 'Medical Times and Gazette' report contains a summary of the cases which have been recorded during the last six years.

NUSSBAUM describes an abscess in the lower jaw resembling a cystic growth. He removed a portion of the bony wall with a chisel and forceps, and effected a cure.

COOTE's patient was a wax dipper, æt. 39, and the duration of the disease was thirteen months. The lower jaw was denuded of periosteum, quite black, and slightly moveable; it was sawn

through at the symphysis, and the halves were pulled out separately; the left condyle remained. The periosteum began to throw out new bony matter, and a new jaw was in process of formation when he left the hospital.

QUINLAN removed the whole of the upper maxilla including the floor of the orbit. It was laid bare by two incisions, one from the inner canthus, along the side of the nose, and through the middle of the lip; the other from the same point outwards, along the lower margin of the orbit. The bone was divided with a chain-saw.

BEREND speaks very decidedly against opening psoas abscesses, maintaining an expectant treatment to be the best. They should only then be opened when the skin is thinned and inflamed. Iodine injections are not to be practised till the diseased condition of the bone has ceased to exist, and the abscess only remains.

At a meeting of the Société de Chirurgie, Paris, on the 14th June, the beneficial action of iodine directly applied to carious bone was maintained by Boinet and Vernueil. Chassaignac and Marjolin, on the other hand, held that in abscesses connected with caries iodine injections were quite ineffective, and the latter related the case of a child with psoas abscess, which he injected twice with iodine; the second time, at the moment of injecting, the child gave a loud scream, and died two hours afterwards, from peritonitis and iodine-poisoning. At the upper third of the abscess the peritoneum had burst; the iodine had not reached the carious vertebra.

BIRKETT reports five cases of fracture and dislocation of the vertebræ.

BROCA reduces the various forms of Pott's disease to two heads: tuberculosis of the vertebræ without antecedent inflammation; and caries, necrosis, and arthritis, resulting from inflammation of the bone or its appendages. Tubercular infiltration of the spongy tissue of bones is extremely rare, and he had not met with any instance of it in the vertebræ; but encysted tubercular deposits in the vertebræ are frequent. The differential diagnosis between caries and tuberculosis of the spine is carefully given.

FERGUSON'S patient had sinuses about the shoulder-joint during fourteen years. Grating could be distinctly felt on moving the humerus. The head of the bone, denuded of cartilage and much eroded, was first removed, and then some exfoliations were taken from the glenoid cavity.

BRYANT exposed the joint by a single long incision, parallel to

the fibres of the deltoid; then cut off the head of the humerus with Butcher's saw. The cartilage had almost wholly disappeared, and the bone was acutely inflamed. The man was up on the eighth day, and out of doors on the fourteenth.

BRYANT sketches the different forms of dislocation of the shoulder-joint.

SKEY narrates four cases; the first of which was a severe compound comminuted fracture of the upper part of the humerus. The lower fragment projected to the extent of four inches through a large, lacerated wound. Two and a half inches of the bone were removed before reduction could be effected. This and the other cases happened in boys. A case of dislocation of the sternal end of the clavicle is also mentioned. The reduction was not difficult, but the bone constantly resumed its faulty position; it was subsequently kept in place by a truss, and the integrity of the joint was restored.

ERICHSEN's lecture contains the history, diagnosis, and prognosis of this disease, which may be mistaken for neuralgia of the hip, sciatica, spinal disease, coxalgia, and disease of the pelvic bones.

PRICE reprints several articles, which, during the last two years, have appeared in the 'Medical Times and Gazette' and the 'Lancet,' on the treatment of strumous disease of the knee-joint by excision; on the mechanical treatment of the limb after the operation; and on some of the causes which have occasionally rendered the operation unsuccessful.

WATSON's analysis comprises eleven cases which had been treated in Glasgow, four of which succeeded and seven failed. Watson operates by a single incision across the patella, and he cuts the bones with a bow-saw in such a manner that the surface of the femur is convex, and fits into the opposed surface of the tibia, which he makes concave.

SOLLY gives an historical review of the operation, with a report of the cases treated in St. Thomas's Hospital, and directions for the operation and the after-treatment.

ERICHSEN's patient, æt. 80, was a maid-servant. She had altogether a tuberculous aspect. The commencement of the disease of the knee dated from four years previous to her admission. The structures of the joint were extensively destroyed, and there were large deposits of tubercle in the tibia and femur. She caught

erysipelas, which was prevalent at the time, and sank on the twenty-third day after the operation.

ERICHSEN excised the knee of a woman, *æ*t. 30, for strumous disease of the joint of four years' duration. She progressed favorably for three weeks after the operation, and then succumbed under an attack of erysipelas.

FERGUSSON's patient, a boy, *æ*t. 8, had had strumous disease of the knee-joint during several years. The articular surfaces of the bones were sawn off through a single incision across the front of the joint. A very useful limb was obtained.

CRAVEN says, three and a half months after the excision the wound had not closed, and no union of the bones had taken place. The thigh was amputated, by the circular method, in the upper third. Death on the third day.

KINLOCK's patient had been bedridden two years. The disease was of long standing. The patella was removed, together with the articular surfaces of the femur and tibia. A firm bony union, and very useful limb was obtained. For five or six days after the operation opium was freely given.

In LISTER's case the whole bone was carious, and a profuse purulent discharge ran from the knee-joint. The patella was excised, and the wound healed rapidly. Four months afterwards the patient was able to walk without a stick, with the support of an elastic knee-bandage only.

ADAMS recommends that, when the joint is distended with pus, free incisions should be made into it.

ERICHSEN relates a case of caries of the calcis, astragalus, and cuboid bones. The diseased bony tissue was gouged away; erysipelas supervened, and rendered amputation of the whole foot necessary. A good sketch of the surgical anatomy of the tarsus is given, and the subject is further illustrated by examples of disease of the various tarsal bones successfully treated with the gouge.

STILLMAN's is a case of caries of the os calcis, following a bruise on the heel. The patient had been previously treated for tubercular disease of the left lung in an early stage. Nearly the whole of the cancellous tissue of the bone was gouged away through an incision below and rather behind the external malleolus. The wound healed perfectly, and the lung-disease became stationary.

HANCOCK's lecture contains a report of four cases, three of which were successful. Hancock carries an incision from above and

behind the malleoli, across the instep; this goes through the skin only, and should not divide the fascia. He raises the flap of skin thus marked out, dislodges the peronei tendons from behind the external malleolus, one inch above which he divides the fibula with bone-forceps, and removes it, after cutting through the inferior tibio-fibular ligament. The foot and leg are now turned on the outside, and the tendons of the flexor communis digitorum and tibialis posticus are dissected from the malleolus internus, after which the internal lateral ligament is divided. The end of the tibia is now to be dislocated through the wound, and removed with an amputating saw; and afterwards the upper articular process of the astragalus is sliced off with a metacarpal saw placed between it and the tendo-Achillis. Hancock remarks that the success of this operation depends on not injuring the anterior and posterior tibial arteries, and on no account should the sheaths of the tendons be opened.

HANCOCK'S patient, a boy, *æt.* 6, who had had slight pain in the ankle for several months, leaped from a wall and injured the painful joint, which became acutely inflamed. When admitted into hospital, there were sinuses leading to the interior of the joint, which was disorganized. The articular surface of the tibia, with both the malleoli and the astragalus, together with the upper articular surfaces of the os calcis, and a large portion of its cancellous tissue, were removed. Six months afterwards he could stand and walk without pain. The wound was quite healed.

NEW-GROWTHS AND CYSTS.

Birkett.—Contributions to the Practical Surgery of New Growths or Tumours, Series iii. Cysts. Guy's Hosp. Reports, vol. v, pp. 247—279.

Gunter.—Report of Cases occurring in 'Pitha's Clinie,' 1854-9.

Johnson.—Sebaceous Tumour causing Absortion and Perforation of the Cranium. Brit. Med. Journ., March, 12th, 1859.

Foucher.—The Treatment of Cystic Tumours by the Application of Sulphuric Acid. (Rev. de Thér. Méd. Chir. No. 2, 1859.) Schmidt's Jahrb., No. 6, 1859.

BIRKETT reports a series of cases of cysts of the skin and mucous orifices. He says, sebaceous cysts of the scalp are peculiar in having a dense horny capsule in contact with the tunica propria. This is not the

true cyst-wall altered by pressure, as formerly supposed, but it consists of laminated epithelium, as was demonstrated by Prescott Hewett in his lectures at the Royal College of Surgeons. The excision of the fibrous tunic does not seem to be so necessary in these, as in other tegumentary cysts; but when large and of long duration, and when they have been inflamed, its removal is necessary. He points out the resemblance of some cystic and follicular growths which have suppurated, and are filled with granulations, and which exude a fetid sanies, to some varieties of cancer, and insists on the excision of every portion of the new growth. Small growths from the mucous follicles of the lip occasionally simulate epithelial cancer, and Birkett thinks many cases of ulceration of the lip stated to be cancer, have been of this nature. He thinks that ranula, formed by dilatation of Wharton's duct, is extremely rare, and he does not record any case of this kind. He believes that, in most instances, sublingual cysts depend on a morbid state of Rivini's glands which are small vesicles in the mucous membrane of the floor of the mouth, and at the sides of the tongue. The injection of stimulating fluids often fails, and the most certain mode of cure is, by exciting suppuration.

GUNTER's report includes three cases of unusually large ranula. In two of them, a bristle could be passed through the orifice of Wharton's duct into the cavity of the cyst.

JOHNSON's patient had a small "subcutaneous dermoid cyst" (Lebert) upon the forehead. It adhered firmly to the periosteum, and after its removal, a perforation was found in the subjacent bone.

FOUCHER firmly presses a pen dipped in the acid upon the centre of the swelling for four or five minutes. Simultaneously with the separation of the eschar, the cyst itself becomes separated from the surrounding tissues, and both may be pulled away together without pain or bleeding.

SYPHILIS.

Lee.—Clinical Lecture on Syphilitic Inoculation. *Lancet*, Jan. 29th, 1859, p. 103.

Ricord.—Lectures on Chancre, delivered by M. R., Surg. to Hôp. du Midi, Paris.

Published by Mr. Fournier, with Notes and Cases, and translated from the French by C. F. Maunder, F.R.C.S., &c. 8vo, cloth, 8s. *London*, 1859, J. Churchill.

LEE teaches that those primary syphilitic sores which are characterised by specific adhesive inflammation, and which do not, unless

irritated secrete pus, are not readily inoculable in the ordinary way ; but that the same sores, when irritated, do furnish a secretion, inoculation with which produces some form of specific inflammation.

RICORD insists upon two distinct kinds of chancre—the simple and the infecting, of these the simple chancre is the more common ; it is very often multiple ; and occurs upon all parts of the body except on the head. It is in the highest degree contagious, and confers no immunity against subsequent ones. Its propagation is favoured by a breach of surface in which case the inoculation is immediate ; but, the unbroken surface of the skin or mucous membranes may become vesicated in consequence of the acridity of the chancreous pus, and the cuticle being raised, the denuded surface is contaminated ; this is what Ricord terms “retarded inoculation.” Chancreous pus long retains its virulence. Ricord has inoculated successfully with pus, which had been preserved in a stoppered bottle during seventeen days. Both the simple and infecting chancres commonly, though not invariably, commence as pustules. The diagnosis is founded on the state of the base, and of the nature of the buboes which accompany them. In the simple chancre this is soft ; or if it be firm, its hardness resembles the brawny consolidation around a boil, and is very different from the cartilaginous induration of the infecting chancre. The bubo from a simple chancre is acute ; it occurs in the superficial glands of which one only is inflamed, and this does not contaminate its neighbours. It may be caused—first, by simple irritation, in which case it is a simple adenitis that may be resolved, or may end in abscess ; or, secondly, it may result from the direct transmission of virulent chancreous pus from the surface of the sore along the lymphatic vessel to the interior of the gland which it inoculates. The gland thus contaminated, necessarily suppurates, and furnishes a virulent pus. The edges of the simple chancre are perpendicular as if punched out ; it tends to spread superficially, and is more prone to phagedena than the indurated one. The only certain sign is its inoculability. The simple chancre is a local, and never a constitutional affection ; hence local treatment is alone necessary. The destruction of the specificity of the chancre, and its consequent change into a simple ulcer, is best attained by cauterization. For this purpose, Ricord prefers a paste made by mixing sulphuric acid with vegetable charcoal. If cauterization fail, or it be objected to, simple astringent lotions will suffice in case the chancre be not spreading ; but if it extends, the

“vin aromatique” should be used. Phagedena is to be arrested by one-drachm doses of the potassio-tartrate of iron taken three times a day, and by dressing the sore twice daily with the same solution. Ricord deprecates the use of fatty matters, particularly those containing mercury as being most injurious to chancres. The simple chancre is transmitted to a person who has never had syphilis, only in the form of a simple chancre. The infecting chancre has sloped edges and not cupped; its base is indurated, the hardness being elastic and cartilaginous, and abruptly circumscribed. This induration never precedes ulceration. It begins in the first week, and develops itself during the second. In chancres, on the verge of the anus and upon the mucous membrane of the vagina, it is but slightly marked; and here it feels like a piece of parchment subtending the surface of the chancre. This peculiar induration of the base of the infecting chancre may be masked for a time by simple inflammatory swelling, but it becomes obvious when the latter subsides. The infecting chancre is generally a solitary one, but it is occasionally multiple. It gives rise to an indolent multiple bubo which does not, of itself, suppurate, although it is not insusceptible of suppuration, and abscesses may, indeed, result from struma, &c. The indurated indolent bubo is a very persistent symptom. There can be no infecting chancre without an indurated symptomatic bubo. When indurated, the chancre is no longer a purely local affection. The induration is the first symptom of a diathesis; it is the prelude to constitutional syphilis, and is necessarily followed by the symptoms peculiar to syphilis within six months. In non-syphilitic subjects the infecting chancre is always transmitted in the same species.

RICORD divides syphilis into three stages:—1. Indurated chancre with corresponding bubo. 2. Within the first few months, affections of the superficial tissues, the skin and mucous membranes. 3. Affections of the deeper tissues, which rarely appear before six months.

The virus is only inoculable during the first period. The indurated chancre is never produced more than once in the same subject. Inoculation with the virus of an indurated chancre, performed upon a person who has already had such a chancre, is either sterile, or it gives rise to a sore with a soft base, resembling a simple chancre in appearance, but propagating itself in a third healthy person as an indurated chancre. Ricord has never seen constitutional symptoms follow a chancre that has been destroyed within the first four days. He therefore cauterizes and kills syphilis in the germ. When indu-

ration is present, Ricord gives mercury at once. He prefers the internal exhibition, but when this is inadmissible, he employs inunction or fumigation. Salivation is not desirable, but if it should happen, he arrests it with chlorate of potash, two scruples to one drachm of which are to be given daily. The mercurial is followed by a course of iodide of potassium, one scruple to three scruples a day. In a résumé of these lectures, Ricord teaches the unity of the syphilitic virus, and the existence of a second venereal or chancreous pus, which gives rise to the simple chancre, and is independent of syphilis. The latter half of the book is an appendix of notes and cases, to which is tacked on a description of a urethrotome contrived by the translator.

TETANUS.

Erichsen.—Practical Clinical Remarks on Tetanus. *Lancet*, Feb. 26th, 1859, p. 206.

Canton.—Traumatic Tetanus from a Lacerated Wound of the Forearm and Radial Artery. Treatment by Belladonna and Chloroform. Fatal result. *Ib.*, Feb. 5th, 1859, p. 133.

Hughes.—Traumatic Tetanus following a Simple Fracture of the Fore Arm. Median Nerve found stretched over the spiculated upper fragment of the Ulna. *Dublin Hosp. Gaz.*, Feb. 1st, 1859.

Cases of Traumatic Tetanus. *Glasgow Med. Journ.*, July, 1859, pp. 197—204.

M'Ghie.—Two Cases of Traumatic Tetanus. *Ib.*, Oct. 1859, p. 321.

ERICHSEN advocates the division of the nerve leading from the wound in acute traumatic tetanus.

HUGHES relates that a girl, æt. 7, fell and broke her forearm. She went on well for several days, when acute tetanus set in, and death took place two days afterwards. The median nerve was found stretched over and in close contact with the spiculated superior fragment of the broken ulna.

The 'Glasgow Medical Journal' gives a report of three cases; one treated with cannabis indicus, one with chloroform, and one with digitalis. All died.

In both M'GHIE'S cases tetanus followed a severe crush of the foot, and both were treated with cannabis indicus. One recovered.

DISEASES AND WOUNDS OF THE EYE AND ITS APPENDAGES.

- Dixon.**—A Guide to the practical study of Diseases of the Eye. Post 8vo, cloth 9s. *London*, John Churchill.
- Cooper.**—On Wounds and Injuries of the Eye. 8vo, cloth 12s. *London*, John Churchill.
- Martin.**—On Diseases of the Eye, their modifications, &c., as observed in India. *Brit. Med. Journ.*, Jan. 15th and 22d, 1859.
- Sichel.**—On Epithelioma of the Eye and its Appendages. (*Gaz. Hebdom.* 1858, vol. v, pp. 9, 12.) *Schmidt, Jahrb.*, No. 7, 1859.
- Gyomai.**—Recherches sur les ophthalmies contagieuses. Quelques mots sur les uréthrites contagieuses. [Researches in the Contagious Ophthalmia. A few words on Contagious Inflammations of the Urethra.] Thèse, p. l. d. in *Méd. Paris.* *Schmidt's Jahrb.*, No. 4, 1859.
- VanRoe.**—Betrachtung über die Entwicklung's und Verbreitungsweise der Ophthalmia granulosa, purulenta, contagiosa. [An Inquiry into the Origin and Mode of Propagation of Granular, Purulent, Contagious Ophthalmia.] *Aus. Prof. Phiry's Klinik.* *Journ. de Méd. Bruxelles.* *Canstatt's Jahrb.*, 1859.
- Bendz.**—Quelques considerations sur la nature de l'ophthalmie militaire par rapport à son apparition dans l'armée danoise en 1851. [Some Reflections upon the nature of Military Ophthalmia with reference to its appearance in the Danish army in 1851.] *Mém. présenté au Congrès d'Ophthalmologie de Bruxelles*, session 1857. *Copenhagen*, 1858. *Canstatt's Jahrb.*, 1859.
- Valentini.**—Ueber die im Fueseler Bataillon des k. Preuss. Franz. Regiment's beobachteten und behandelten Erkrankungen der Conjunctiva. [On the Diseases of the Conjunctiva observed and treated in the Fusilier Battalion of the Royal Prussian Franz Regiment.] (*Deutsche Klinik*, No. 10.) *Canstatt's Jahrb.* 1859.
- Moeller.**—Bericht des Prof. Bendz an das k. daenische Kriegsministerium über die Verhandlungen des Ophthalmologischen Congresses zu Brüssel, 1857, die Militaer Augenkrankheit betreffend. [Prof. Bendz's Report to the Royal Danish War-Ministry on the Proceedings of the Ophthalmological Congress, held at Brussels, 1857, with reference to Military Eye Diseases.] (*Deutsche Klinik*, No. 30.) *Canstatt's Jahrb.*, 1859.
- Warlemont.**—Die sogen Ophthalmia militaris auf den Congress zu Brüssel. Antwort au J. F. Vleminck. [The so-called Military Ophthalmia, at the Brussels Congress. A Reply to J. F. Vleminck.] *Annales d'oculist*, Mai, Juin, vol. xxxix. *Canstatt's Jahrb.*, 1859.
- Pauli.**—Mémoire sur la nature de l'Ophthalmie d'Egypte. [Memoir on the nature of Egyptian Ophthalmia.] *Wurtzburg*, 1858. *Canstatt's Jahrb.*, 1859.
- Sommer.**—De ophthalmia ægyptiaca. [On Egyptian Ophthalmia.] *Diss. inaug.* *Birol. S.* in 8. *Canstatt's Jahrb.*, 1859.
- Müller.**—Einspruch zur Abwehr irriger Lehraetze bei Beurtheilung der contagioesen Angenliderkrankheit; nebst einen darauf folgenden Deükschrift ueber denselben Gegenstand. [A Protestation against Faulty Principles relative to the Contagious Disease of the Eyelids; with a consequent Memoir on this condition.] *Annalen des Charite-Krankenhauses u. s. w. zu Berlin*, vol. viii, Jahrg. 3 Heft. *Canstatt's Jahrb.*, 1859.

- Costetti.**—Ueber die Ophthalmia militaris und ihre Behandlung. [On Military Ophthalmia and its Treatment.] *Lo Sperimentale*, No. 2, Febr. *Canstatt's Jahrb.*, 1859.
- Cordier.**—Étiologie de l'ophthalmie purulente spontanée. Considerations sur sa nature et son traitement. [The Etiology of Spontaneous Purulent Ophthalmia. Reflections upon its Nature and Treatment.] Thèse p. l. d. de Méd. Paris. *Canstatt's Jahrb.*, 1859.
- Stellwag von Carion.**—Ueber die Behandlung des Bindehautschleimflusses bei Neugeborenen und Kindern. [On the Treatment of the Conjunctivitis of the Newly Born and of Children.] *Jahrb. fuer Kinderheilk.* vol. xi, No. 3. *Canstatt's Jahrb.*, 1859.
- De Conde.**—Ueber eine neue Behandlungsweise der Ophthalmia purulenta. [On a New Mode of Treatment of Purulent Ophthalmia.] (*Ann. de la Soc. de Méd. d'Anvers*. Sept.) *Canstatt's Jahrb.*, 1859.
- De Conde.**—Ueber ein neues Curvenfahren bei der Ophthalmia purulenta. [On a New Method of Cure in Purulent Ophthalmia.] (*Annales d'oculist.* Jul., vol. xl.) *Canstatt's Jahrb.*, 1859.
- Wilde.**—On Gonorrhœal Ophthalmia. *Med. Times and Gaz.*, Feb. 27th, 1859.
- Paoli.**—Inoculation des blennorrhœischen secrets als Heilmittel des Pannus. [On the Inoculation with the Blennorrhœal Secretion as a means of Curing Pannus.] (*Lo Sperimentale de Firenze*, Jan.) *Canstatt's Jahrb.*, 1859.
- Maracacci.**—Pannus der Hornhaut. Heilung durch inoculation blennorrhœischen Secrets. [On the Cure of Pannus of the Cornea by Inoculation with Blennorrhœal Secretion.] Schreiber au Prof. Paoli. (*Lo Sperimentali di Firenze*, Oct., No. 10.) *Canstatt's Jahrb.*, 1859.
- Hancock.**—Cases of Gonorrhœal Ophthalmia cured under Stimulant and Supporting Treatment. *Lancet*, Sept. 12th, 1859.
- Hulme.**—Obstruction of the Lachrymal Passages. A new mode of "Treatment by Dilatation." *Med. Times and Gaz.*, May, 21st, 1859.
- Wharton Jones.**—Unguentum sulphuris as a Remedy in Granular Ophthalmia. *Med. Times and Gaz.*, Jan., 1859.
- Pean.**—On a peculiar Tumour of the Cornea. (*Gaz. des Hôp.*, 1859, No. 53.) *Schmidt's Jahrb.*, No. 9, 1859.
- Noizet.**—On Staphyloma Posterius. (*Gaz. Hebdom.*, 1858, No. 17, 21, 23, 27.) *Ib.*, 1859, No. 1.
- Jaeger.**—Glaucoma and its Treatment by Iridectomy. (*Wien Zeitschr.* 1858. n. F. 30, 31.) *Schmidt's Jahrb.*, 1859.
- Hildige.**—On a Case of Intraocular Hæmorrhage consecutive to the operation for Cataract by Extraction. *Lancet*, Sept. 17th, 1859.
- Daniell.**—Suppurative Iritis and Continental Practice, with its results. *Ib.*, March 26th, 1859.
- Geissler.**—Hæmeralopia and its Treatment. A Report of Papers, &c., by Deval, Foussagrives, Baizeau, Doumie, Despont, Netter. *Schmidt's Jahrb.*, 1859, No. 2.
- Küchler.**—The Oblique Illumination of the Eye as a diagnostic aid. (*Deutsche Klinik*, 1858, No. 48.) *Ib.*
- Carron du Villards.**—On the Different Kinds of Exophthalmos. (*Ann. d'oculist* Sept. et Oct., 1858.) *Ib.*, No. 3.
- Foucher.**—On a Peculiar Form of Orbital Tumour. *Gaz. des Hôp.*, 1858, No. 141; *Ib.*

Giantonio Gioppi.—Aneurism of the Ophthalmic Artery cured by Digital Compression. (*Giorn. d'Ophthalmol.*, Aprile et Maggio; et *Ann. d'Oculist*, Nov. et Dec., 1858.) Ib.

Vanzetti.—A second Case of Aneurism of the Orbit. Ib.

Wordsworth.—On a large Cyst in the Orbit, cured by the cauterant action of Iodine on its Interior. *Med. Times and Gaz.*, Aug. 20, 1859.

Aiken.—Exostosis of the Orbit. *Charleston Journ.*, Nov., 1858.

DIXON'S work is the second edition of his already well-known text-book, with considerable additions.

COOPER'S is a profusely illustrated monograph.

SICHEL insists on the importance of an early diagnosis of this disease at its very commencement, when surgical interference may be successful. The first stage of its development is less generally known than the later ones where ulceration has taken place, when advice is usually first sought. Usually one or several distinct, more or less rounded nodules, appear on the free border of the lid, or close to it. They are hard, and either of the colour of the skin, or greyish and semi-transparent. Besides upon the edges of the lids, they are prone to occur at the inner canthus, which is destroyed when they ulcerate. The isolated nodules or beads become confluent, involve the subcutaneous tissues, and adhere to the tarsus. Up to this period the disease is best removed with the knife, and Sichel recommends a strict antiscrofulous treatment after the operation, because he has noticed this cancer especially in persons of a lymphatic temperament. But when the surface is ulcerated, and the nodule is fixed to the tarsal cartilage or bone, Sichel deprecates extirpation with the knife, and considers the energetic use of caustic more appropriate.

PAOLI and MARACACCI report the successful treatment of pannus by inoculation with matter from cases of purulent ophthalmia, from the urethra, and from a case of traumatic ophthalmia.

HANCOCK reports two cases. The local treatment consisted in poppy fomentations; in the first case a solution of nitrate of silver, eight and a half to one ounce of distilled water, was also used. The general treatment was quinine, porter, and full diet.

HULME having slit the punctum and canaliculus, introduces a piece of silver wire, of suitable thickness, into the nasal duct, the upper end is then bent over the edge of the lid at the inner canthus, and cut short off.

WHARTON JONES scarifies the conjunctiva, and then insinuates a small piece of the sulphur ointment of the Pharmacopœia beneath the upper eyelid, which he rubs over the eyeball with the finger for a minute or two, in order to spread the ointment over the whole conjunctiva. Jones was led to employ the ointment by the idea that the disease might depend on, or be maintained by the presence of a parasitical organism.

PEARCE says, the development of the tumour is attended by inflammatory symptoms. The growth fills the anterior chamber, and is connected with the cornea and sclerotica at their junction, which seems to be its starting-point; corresponding to it externally a ciliary staphyloma (?) appears. If the front of the globe be removed, the posterior part is found to be healthy. The growth is semitransparent, semi-elastic, and homogeneous.

NOIZET remarks that the very frequent occurrence of posterior staphyloma in myopia renders it important that every surgeon should be familiar with this condition. His description of this affection is very complete, and embodies the results of forty dissections by French and German observers. The antero-posterior diameter of the globe is always lengthened so that it has more or less the shape of an egg or pear. The staphylomatous projection when single, which is most common, is always at the outer side of the optic nerve, encircling it. Occasionally the nerve is compressed or pushed to the inner side of the fundus. It has been found atrophied. When a second staphyloma coexists at the inner side of the optic nerve, it is always smaller than that at the outer side. The whole posterior hemisphere has been found projecting, with the optic nerve inserted into the centre like a stalk. The sclerotica is much thinned, like paper. Seen from within, the staphyloma is marked by a pearly-white spot, rarely of a dirty-yellowish colour. Early in the disease its shape is a crescent, accurately encircling the margin of the optic nerve at its outer side. As the white spot enlarges it loses the crescentic shape, and its edge is ill-defined. The sclerotica always retains its fibrous structure. The choroid is stretched, and has lost its pigment. In advanced cases there are black patches at the edge of the white spot; they are irregular collections of new pigment. The retina generally preserves its integrity, even over the pearly-white spot, except in very advanced stages of the disease. The vitreous humour is more fluid than in health, and the back of the lens becomes more opaque in advanced cases.

Symptoms.—Noizet follows Jäger's division into three stages. 1st. The eyes soon tire; and after looking at anything for a little while lachrymation occurs, and a sensation of tightness in the eye-ball is felt. Objects are distinctly seen. By far the majority of patients are shortsighted. The optic entrance embraced by a white crescent. 2d. Myopia notably increased. The elongation of the antero-posterior axis is apparent when the eye is turned strongly inwards towards the nose. The white crescent enlarges at its convex border. The macula lutea is yet intact. Looking at near objects, even with a concave lens, is painful. 3d. The secondary phenomena make their appearance. These are varying dimness of vision; great sensitiveness to light; dark spots and clouds; pupil sluggish and dilated; anterior chamber large.

Staphyloma posterius is a common disease. It occurs most frequently in young persons.

Nature.—Widely different opinions are held. Sichel regards it as an inflammation of the choroid. Jäger assumes an intra-uterine scleritis as the cause. Arlt mechanical distension by muscular pressure. Graefe designates it sclero-choroideitis post. Noizet retains the name originally given it by Scarpa, Staph. post., which involves no theory.

Treatment.—Careful avoidance of all occupation which demands efforts of accommodation, attention to the general health, and local abstraction of blood.

JÄGER understands by glaucoma that morbid state of the eye in which, with or without inflammation, in addition to the symptoms recognisable by the unaided eye, excavation of the optic nerve exists. Jäger considers the arterial pulse of little value, because it is not in direct proportion to the degree of tension of the globe, and occurs in other diseases. The excavation of the entrance of the optic nerve cannot be dependent on intraocular pressure, for the following reasons. 1. It frequently occurs without increased intraocular pressure. 2. It does not take place in other inflammatory and other processes which are attended with increased tension. 3. It does not lessen after iridectomy, whilst other staphylomata recede after this operation. The results obtained by Jäger coincide with those by Graefe, only he does not give quite as favorable a prognosis in acute glaucoma.

HILDIGE relates that the hæmorrhage began during vomiting an

hour after the operation, and continued for upwards of twenty-four hours.

DANIEL gives a critical review of three cases of suppurative iritis published by Dr. Hildige, in the 'Dublin Hospital Gazette,' October 15th, 1858. Daniel remarks that the disease is quite unknown in this country. He recommends a tonic treatment, and deprecates paracentesis of the cornea and iridectomy, which had been employed by Arlt and Jäger, under whose care the cases had occurred. Daniel doubts the value of iridectomy in glaucoma.

KÜCHLER strongly recommends the oblique illumination of the front of the eyeball, by throwing a cone of light upon it with a convex lens, when a careful examination of the cornea, iris, &c., is necessary.

CARRON DU VILLARD follows the usual division of this subject into the following heads, which are illustrated by cases. 1. Exophthalmus caused by change in the bony tissues of the orbit. 2. Exophthalmus caused by tumours in the orbit. 3. Exophthalmus caused by tumours in the neighbouring bony cavities. 4. Traumatic exophthalmus. 5. Hæmorrhagic effusions not traumatic in origin.

FOUCHER reports a case of a very remarkable tumour at the inner part of the roof of the left orbit, which he supposed to be a dilatation of the ophthalmic vein.

GIOPPI's patient was a woman, æt. 42. The symptoms appeared suddenly during labour. All the chief signs of aneurism were present. The pulsation and bruit ceased when the carotid was compressed, and the eyeball receded. Digital compression was maintained by relays of dressers. Four days afterwards the patient was free from the beating and rushing, and the bruit could not be heard with the stethoscope. The tumour gradually diminished.

VANZETTI's case, also a woman, æt. 49. She had had dilatation of the heart and aorta for five years. The orbital aneurism appeared after the third paroxysm of a severe intermittent with cerebral congestion. A cure was also obtained by digital compression.

To these a notice is appended of published cases of protrusion of the eye by dilatations of the orbital vessels, by WINTER.

WORDSWORTH says, the cyst had existed during several years; it projected from the roof of the orbit, and had thrown the eye forwards and outwards. Its close relation with the eyeball, and its

firm adhesion to the fibrous covering of the bone, made its complete extirpation impracticable; Wordsworth, therefore, painted its interior with a strong alcoholic solution of iodine. Four months afterwards no vestige of the tumour remained, and the eye had resumed its normal position.

AIKIN says, the tumour, first noticed by the patient, a woman, three years before, had the size of a hen's egg; it appeared to occupy two thirds of the orbit, and to spring from its roof. After it had been laid bare by an incision parallel to the eyebrow, not the slightest interspace could be distinguished between the tumour and the roof of the orbit; both seemed to form one continuous mass. Bone-forceps and chisels failed to cut it, and only a small piece was chipped off the surface; the hot iron was therefore applied to it, to cause exfoliation. Three weeks afterwards, not the slightest change having taken place, holes, $\frac{1}{2}$ —1" deep, were bored with a fine drill, in various directions, but always parallel to the orbital roof, to avoid perforating this. Into these holes strong nitric acid was introduced. The portions of bony tissue between the holes became smaller and smaller; in process of time portions broke away; and after nearly four months the last remains of it were removed. The eyeball was easily replaced in the orbital cavity, and vision returned ten minutes afterwards (?) Subsequently, during the ensuing month, there were very serious symptoms; violent headache, hot, dry skin, and great thirst. A small, fistulous opening remained at the inner canthus, and the eye could not be turned fully inwards, on account of the division of the *musc. rect. int.*

ORTHOPÆDIC SURGERY.

Henke.—Contractions of the Tarsus. (*H. u. Pf's. Ztschr.*, 3, vol. v, pp. 44—82.)
Schmidt's Jahrb., p. 2, No. 7, 1859.

Heiberg.—An Operated Valgus Pedis. (*Norsk Magazin*, vol. ix, p. 506.)
Schmidt's Jahrb., No. 7, 1859.

Delore.—Pied plat valgus douloureux, nach Bonnet's Klin. Vosträgen. [On Painful Flat-foot.] (*Bull. de Thér.*, vol. liv, pp. 489—536, Déc., 1858.)
Schmidt's Jahrb., No. 7, 1859.

Brodhurst.—Division of the Tendon of the Rectus Femoris. *Lancet*, 27th Aug., 1859, p. 215.

Borelli.—Contraction of the Fingers and Hand after Injury of a Nervous Filament in Bleeding. (*Gazz. Sarda*, 45, 1858.) *Schmidt's Jahrb.*, No. 3, 1859.

HENKE's memoir begins with general remarks upon the nature

and causes of contractions of joints. His analysis of the complicated contractions of the tarsus is based on the assumption of two joints, with independent motions and separate axes between the leg and the foot. Of these—the upper one, called by him the “spring joint,” has flexion and extension; and the lower one, the “foot joint,” abduction and adduction. The contractions are grouped in three series :—

I.—*Contractions of the Spring Joint.*

1. *Pes flexus*.—The foot is kept in a pointed position chiefly by the approximation of the bones of the leg, by reason of the decreasing breadth posteriorly of the trochlear surface of the astragalus, which become fixed by fibrous adhesions. The posterior portion of the trochlea, wedged between the bones, forms an angle with the anterior portion which projects beyond the bones of the leg, and gradually loses the character of an articular surface, and becomes adherent to the capsule.

2. *Pes extensus*.—The heels point downwards, the toes upwards. A lateral displacement of the astragalus, upon which common club-foot depends (according to Cruveilhier and Stromeyer), does not occur.

II.—*Contractions of the Foot Joint.*—(Calcaneo-astragaloid.)

1. *Pes adductus*.—The toes are turned inwards; the inner border of the foot looks upwards, the outer downwards. In excessive adduction, the astragalus presses on the Sustentaculum Tali, and causes its absorption; a defect which Henke has found in all preparations of club-foot. The anterior articular surface of the astragalus enlarges in the inner side, and becomes impressed so as to form an obtuse angle with the neck of the bone. This change is brought about by the inward displacement of the scaphoid bone.

2. *Pes abductus*.—The most important change lies in a subluxation of the scaphoid upon the astragalus. The inner border of the foot looks downwards, the outer upwards. The foot is pointed outwards and somewhat upwards.

3. *Pes inflexus*.—An excessive arching of the sole of the foot.

4. *Pes recursus*.—The inner border of the foot becomes flat, the outer convex. The plantar muscles are too weak to support the weight of the body.

III.—*Compound Contractions.*

1. *Pes flexus, adductus, inflexus, or p. varus.*—The most common form of distortion. The distinction of a simple varus, and equino-varus, is considered unnecessary, because there is no case of varus in which the position of the ankle-joint is not that of equinus. The cuboid bone is twisted inwards upon the os calcis.

2. *Pes flexus, inflexus or p. equinus*, does not occur as a congenital deformity.

3. *Pes extensus, inflexus, or p. calcaneus.*

4. *Pes abductus, inflexus.*—Exceedingly rare. Henke acknowledges this form only from a drawing by Little.

5. *Pes flexus, abductus, reflexus, or pes valgus.*—Flat-foot. In all recent cases Henke recommends Roeser's plan of treatment which consists in overcoming the contraction of the antagonistic muscles with chloroform, bending the foot into the position of equino-varus, and fixing it so with a plaster bandage.

6. *Pes extensus, abductus, reflexus.*—An exceedingly rare form. The dorsum of the foot lies upon the front of the tibia.

HEIBERG reports that the valgus was due to weakness of the plantar-ligaments and aponeuroses, consequent on rheumatism. Heiberg sought to obtain contraction of the relaxed fascia by the introduction of an irritant; and from previous experience, he employed for this purpose wooden pegs, which he introduced through the canula of a trocar, and then snapped them short off, closing the wound with collodion. One was placed in a line from the heel towards the great toe, and another from the same point towards the little toe. Suppuration with cicatrization and contraction of the fascia took place, and the valgus disappeared. The operation was repeated on account of a too great laxity of the ankle joint, in consequence of which in walking the foot had a tendency to twist outwards. One peg was introduced in front, and another behind the malleolus internus. Moderate reaction ensued and convalescence was established, when tetanus supervened.

(The patient escaped with his life and the cure was imperfect.—Trs.)

DELOSE shortly gives the signs, causes, and treatment of this deformity, and reports a few cases.

BRODHURST's case is a badly-united fracture of the femur. The rectus fem. was so contracted, that the knee-joint was nearly im-

moveable. The tendon was divided subcutaneously about two inches above the patella, to avoid wounding the bursa. The leg could be subsequently flexed at a right angle, and the motion of the knee was so far free.

BORELLI says that, on extending the forearm, a tight thread could be felt under the skin at the spot where the vein had been opened. This was divided subcutaneously, and extension was at once accomplished.

DENTAL SURGERY.

Tomes.—A System of Dental Surgery. 8vo, cloth. *London*, John Churchill.

Grimshaw.—Lectures delivered in Steeven's Hospital, Dublin. *Dublin Hosp. Gaz.*, 15th June, 1st and 15th July, 1st Aug., 1859.

Bruek.—Die scrophulose Zahnaffectio[n]. [Scrofulous Affection of the Teeth.] *Leipzig*, 1859. *Canstatt's Jahrb.*, 1859.

TOMES' richly illustrated manual embraces descriptions of the development and irregularities, the minute structure, and the disease of the teeth, with their treatment.

BRUEK makes a distinction between scrofulous cases and that from other causes. He adopts an anatomical classification of diseases of the tooth-pulp.

REPORT
ON
MIDWIFERY AND DISEASES OF WOMEN
AND CHILDREN.

BY
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MIDWIFERY.

GENERAL ANATOMY AND PHYSIOLOGY OF MOTHER AND
FÆTUS, ETC.

- Madge.**—Remarks on the Anatomical Relations between the Mother and Fœtus. Fcap. 8vo, pp. 49. Renshaw, *Lond.*, 1859.
- Priestley.**—Lectures on the Development of the Gravid Uterus. 8vo, pp. 107. Churchill, *Lond.*, 1859.
- Schwartz.**—Die Vorzeitigen Athembewegungen. Ein Beitrag zur Lehre von den Einwirkungen des Geburtsactes auf die Frucht. pp. 308. [Premature Respiratory Movements of the Fœtus. Influence of Parturition on the Fœtus.] (Canst., vol. iv, p. 465.)

WITH respect to the nature of the anatomical relations subsisting between the mother and the fœtus, MADGE's conclusions are widely opposed to those usually received. The "utero-placental" arteries and veins are, he contends, too small, either to be the medium of nourishing the fœtus, or to give rise when ruptured to the floodings attendant on childbirth; they are only vessels of nutrition to the parts in which they are found. The fœtus is nourished by endosmosis, through, first, the utero-placental decidua, and secondly, the membrane covering the extremities of the umbilical vessels. Hæmorrhages, occur, he believes, in consequence of the giving way of the uterine decidua in places and the consequent opening of the

uterine sinuses. The term "maternal portion of the placenta," he rejects altogether.

PRIESTLEY'S lectures on the development of the gravid uterus contain a summary of the more important recent researches on this subject, with which are incorporated the results of personal observations. The histology of the subject has received particular attention in this work.

In reference to the early development of the placenta, Priestley found in an ovum of the second month that the villi of the chorion rooted in the decidua serotina became each of them surrounded by a maternal vascular loop, which ramified into capillaries around the chorion villus. He concludes that by continued growth these capillaries increase in size and number, and each chorial digitation becomes wrapped in the coats of the mother's vessels. On the condition of the interior of the uterus after delivery he offers the following conclusions: The muscular substance of the uterus is nowhere laid bare, nor is there any inflammatory false membrane spread over the surface; when the membranes are thrown off at the end of labour, a portion of the decidua remains attached to the uterine surface, as a protection against external agencies; a new mucous membrane begins to be formed in the latter months of pregnancy between the decidua and muscular coat, which undergoes a rapid development after the uterus is emptied of its contents; and as it is gradually perfected it assumes the functions of the original mucous coat. The work is illustrated with numerous drawings on wood.

SCHWARTZ'S essay is an inquiry into the causes, nature, and effects of respiratory movements of the foetus before complete delivery has occurred. Dubois had observed that compression of the funis excited movements on the part of the child, and that when, the compression being continued, the mouth approached the external genitals, inspiratory efforts took place, and air, or in breech cases, meconium and amnionic fluid, passed into the air-passages. Krahmer pointed out that foetal respiratory movements have an effect varying according to the surrounding medium, and the patulous or non-patulous state of the respiratory orifices. Thus, the openings being free and the foetus in the amnionic fluid, the latter will pass into the lungs. If the openings be closed, the enlargement of the chest will produce certain alterations in the lungs, traces of which Krahmer professed to have seen. Inspiratory

efforts are produced, according to Kralmer, by access of cold air to the skin, or impediment to the umbilical circulation.

From the fact that the placenta is the medium of respiration for the foetus, it is argued that respiratory movements are a constant result of impediment to the foetal placental circulation.

The alterations in cases of asphyxia neonatorum are to be separated into two series: the one includes the consequences and symptoms of gaseous poisoning of the blood; the other, the effects of mechanical disturbances of the circulation. The muscular action of the uterus is the chief cause of impediment to the foetal respiration and purification of the blood. The respiration ceasing, inspiratory efforts follow, and these being fruitless, life becomes extinct, the meconium escapes, &c. The author believes that the rhonchus heard in stillborn children in process of being recovered betokens previous futile inspiratory efforts. In stillborn children, also, meconium, blood, &c., have been found in the bronchial tubes. The meconium and urine are evacuated, as a rule, in stillborn children before or during birth. The absence of this phenomenon is not conclusive as to the fact of the foetus being still alive; its presence indicates death or danger thereof.

TREATISES, PAPERS, ETC., HAVING REFERENCE TO SPECIAL BRANCHES OF OBSTETRICS.

ON PREGNANCY AND PARTURITION.

- Liegard.**—Prolonged Gestation. *Gaz. des Hôp.*, 62, 1859. (Sch., 9, p. 329.)
Case of Protracted Gestation. *Boston Jour.*, May, p. 345, and *Med. Times*, 40, 263.
- Hecker.**—Zür Schwangerschafts diagnostik. [On the Diagnosis of Pregnancy.] *Mon.-Sch. f. Geburtsk.*, xii, p. 401, Dec., 1858. (Sch. 5, 188.)
- Huter.**—Der Muttermund der Erstgeschwängerten am Ende der Schwangerschaft. [The Os Uteri of Primiparæ at the end of Pregnancy.] *Mon.-Sch. f. Geb.*, xiv, 33. (Sch., 11, 183.)
- Matthews Duncan.**—On the Cervix Uteri in Pregnancy. *Edin. Med. Jour.*, March and April, 1859.
- Braxton Hicks.**—New Tests for the Kiesteine of Pregnancy. *Lancet*, ii, 281, 1859.
- Schmitt.**—Beiträge zur Lehre von der Entstehung und Bedeutung des Nabelschnurgeräusches. [On the Cause and Signification of the Funic Souffle.] Scanzoni's *Beiträge*, vol. iii, p. 173. (Canst., vol. iv, p. 469.)

- Mattei.**—On the Diagnosis of Pregnancy. Journ. des Conn. Méd.-Chir., July and Sept. (Canst., vol. iv, p. 469.)
- Frankenhauser.**—Ueber die Herztöne der Frucht, und ihre Benutzung zur Diagnose des Lebens, der Stellung, der Lage u. des Geschlechts derselben [The Sounds of the Fœtal Heart as Diagnostic of the Vitality, Position, and Sex of the Fœtus.] Mon. Schr. f. Geb., xiv, 161. (Sch., 12, 320.)
- Adams.**—On Fœtal Auscultation. Med. Times and Gaz., vol. xiv, p. 615.
- Charien.**—On the Retrogression of Labour. Gaz. des Hôp., 1858, No. 12.
- Schubert.**—On the Phenomena of Delivery, &c. Bull. de l'Ac. de Méd. de Belg., 2 ser., i, 5, p. 325. (Canst., vol. iv, p. 469.)
- Simpson.**—On the Nature of Spurious Labour-pains. Edin. Med. Journ., Oct., 1859, p. 371.
- Butignot.**—On the Prevention of Laceration of the Perinæum during Delivery. Gaz. des Hôp., 70, 1859. (Sch., 8, 194.)
- Schultze.**—Ueber Erhaltung und Zerreiſſung des Dammes bei der Geburt. [On Laceration of the Perinæum during Delivery.] Mon.-Schr. f. Geb., vol. xii, p. 241. (Sch., 6, 305, and Canst., vol. iv, p. 469.)
- Scanzoni.**—Zerreiſſung der rechten Synchondrosis sacro-iliaca während der Geburt. [Laceration of the Right Sacro-iliac Synchondrosis during Labour.] Allg. Wien. Med.-Ztg., 8, 1859. (Sch., 7, 31.)
- Bishop.**—Case of Extensive Emphysema occurring during Labour. Lancet, 1859, vol. i, p. 412.

In one of LIEGARD'S cases pregnancy was presumed to be prolonged thirty-eight days, and in another the term extended to 303 days. In "the case of protracted gestation," pregnancy had lasted 330 days. The osseous system was remarkably developed.

HECKER finds that, as a general rule, the os uteri is open and pervious shortly before labour begins; in a primipara the pervious condition may in most cases be taken as a sign of approaching labour. In a multipara also labour may in most cases be expected fourteen days after the pervious condition has been arrived at. Hecker's conclusions are founded on observations on 723 multiparæ and 223 primiparæ.

HUTER, in order to determine the disputed point as to whether the os uteri is open or not in primiparæ at the end of pregnancy, examined the condition of the os uteri at the end of pregnancy in 1000 primiparæ. The general conclusions are, that in most cases, the external os uteri opens in the last four weeks of pregnancy; that in most cases the internal os uteri opens in the last week before birth, and that in only a few cases the external os uteri remains closed up to the period of the commencement of labour. In *multiparæ* the os uteri, internal and external, opens a little earlier.

MATTHEWS DUNCAN states that—1. The *length* of the cavity of the

cervix uteri undergoes little or no change during pregnancy. The shortening felt by examination is, the author contends, only apparent; contracted dimensions produced by the finger's pressure on the soft cervix may be mistaken for it; introduction of the finger into the cervix, in commencing labour, will afford evidence in favour of this proposition. The evidence of the dissections made by the author shows a marked uniformity of length of cervix at all periods of pregnancy, the general measurement being that of about one inch. Six drawings accompanying the paper illustrate this view. 2. The *capacity* of the cervical cavity becomes gradually greater as pregnancy advances. 3. The length of the vaginal portion of the cervix, or the amount of its projection into the vaginal cavity, generally diminishes as the uterus rises into the cavity of the abdomen, though this is not a constant phenomenon of pregnancy. He maintains also that the apparent shortening of the cervix felt at the middle of pregnancy does not extend to its *cavity*. In the second paper Duncan publishes a letter from Barnes, together with a drawing made by him of the cervix uteri in the beginning of the fifth month of pregnancy. The drawing represents the interior of the cervix uteri as one inch and a half long.

HICKS suggests a method of treating the urine of supposed pregnant women, by which the appearance of the kiesteine is hastened and its quantity increased. The suspected urine is to be mixed with rennet, in the proportion of two teaspoonfuls of the latter to three ounces of urine.

SCHMITT concludes that the funic *souffle* may arise from valvular defects, from twisting of the cord round the neck, or from compression of the cord produced in any other manner.

FRANKENHAUSER believes that much information is to be gained by investigating the position, &c., of the sound of the foetal heart in pregnancy. The various modifying circumstances are pointed out, together with the sources of fallacy likely to be encountered. He believes that the sex of the child can be determined by this method of examination, finding that in the male foetus the heart beats 124, in the female 144 times a minute, on an average; but these numbers only hold good when the observation is made before labour has begun.

CHARIEN cites four cases to prove the fact, that during the latter months of pregnancy labour having commenced so far as opening the os is concerned, complete retrogression for several days may occur.

With reference to the nature of spurious labour-pains, SIMPSON believes that they have their seat in the uterus itself, and are produced, like true labour-pains, by contraction in the walls of the uterus.

BUTIGNOT recommends that in cases where the vaginal outlet is so narrow that laceration is threatened, small incisions be made on one or both sides, near the posterior commissure of the labia.

In SCHULTZE'S essay the mechanism of the causes or circumstances leading to perineal rupture are pointed out.

SCANZONI relates the particulars of a rare obstetrical accident. The patient experienced very severe pain in her second labour, the pain being situated in the sacral region. The head was unusually resistant, and all the diameters greater than usual. Severe pain in the right hip and back of the thigh was felt after the labour, gradually increasing in intensity; crepitation was recognised during motion, which latter was very painful. Finally, an abscess appeared at Poupert's ligament, which was evacuated; a probe having been introduced, passed into the sacro-iliac articulation, and the diagnosis was thus clearly established.

BISHOP relates a case in which extensive emphysema occurred in consequence of severe straining during labour. The patient recovered.

PATHOLOGY OF PREGNANCY AND PARTURITION.

A. ON DEFECTIVE CONDITIONS ON THE PART OF THE MOTHER.

Kussmaul.—Die Ueberwanderung des Menschlichen Eies als Ursache der Eileiter-schwangerschaft. [On the Migration of Ova as a Cause of Tubal Pregnancy.] Verhandl. des naturh. med. Ver. zu Heidelberg, iv, p. 102, 1858. (Sch. 5, 188.)

Pierson.—Case of Fallopian Pregnancy. New York Journ. of Med., July, 1859, p. 141.

Harley.—Case of Tubal Pregnancy. Obst. Trans., vol. i, p. 101.

Hancox.—Tubal Pregnancy. Brit. Med. Jour., 1859, p. 1022.

Rizzo.—Extrauterinschwangerschaft mit fast reifem Fötus, Durchbohrung der Scheide durch einen Arm desselben. [Perforation of the Vagina by an Arm of the Fœtus in a Case of Extra-uterine Pregnancy.] Gazz. Sarda., 2, 1858. (Sch., 9, 329.)

Van Geuns und Schrant.—Graviditas extra-uterina. Verhand. Ph. van het Genoosschap der verbordering der Geneesen Heelkunde te Amsterdam, ii, 1, p. 17. (Sch., 2, 194.)

- Müller.**—Fall von Extrauterinschwangerschaft. [Case of Extra-uterine Pregnancy.] Aertz. Mittheil. aus Baden, xii, 5, 1858. (Sch., 1, 65.)
- Waller.**—Case of Extra-uterine Foetation. Obstet. Trans., vol. i, p. 99.
- Reymann.**—Geburtshülfliche Fälle. [Obstetric Cases.] Pr. Ver. Ztg. N. F., ii, 12, 1859, (Sch., 10, 81.)
- Cahen.**—Fall von Gravid. Extrauterin. [Extra-uterine Pregnancy.] Allgem. Medic. Cent.-Ztg., No. 91. (Canst., vol. iv, p. 470.)
- Chevillon.**—Case of Extra-uterine Pregnancy. Gaz. Méd. de Paris, 22. (Canst., vol. iv, p. 470.)
- Hall Davis.**—Ovarian Gestation. Obstet. Trans., vol. i, p. 241.
- Kros.**—Over het scheef vernaauwde bekken. [On the Obliquely Distorted Pelvis.] 8vo, pp. 146. Leyden, 1858. (Sch., 5, 255.)
- Meissner.**—Hülfswege für den Geburtshelfer in Fällen derartiger Verunstaltungen des mütterlichen Beckens dass im reifes Kind unverkleinert nicht hindurchgeleitet werden kann. [On the Treatment of those Cases in which, the Pelvis being deformed, a Mature Child cannot be delivered intact.] Mon.-Sch. f. Gebursk, xi, 1858. (Sch., 3, 314.)
- Schwegel.**—On a Rare Pelvic Deformity. Allgem. Wiener Med. Ztg., No. 40. (Canst., vol. iv, p. 471.)
- Lambl.**—Ueber das Wesen und die Entstehung der Spondylolisthesis. [On the Nature and Origin of Inter-vertebral Inflammation.] Scanzoni's Beiträge, vol. iii, p. 1. (Canst., vol. iv, p. 471.)
- Birnbaum.**—Case illustrative of the Influence of Angular Curvature in the Lumbar Region on Delivery. Monatsch. f. G. B. S., 35. (Canst., vol. iv, p. 472.)
- Raimbert.**—On a new Pelvimeter. Journ. de Méd. de Brux., Feb., p. 138. (Canst., vol. iv, p. 473.)
- Cuppaidge.**—Case of Obstructed Labour from Occlusion of the Vagina. Dub. Hosp. Gaz., May, 1859, p. 132.
- Branco.**—Stricture of the Vagina impeding Delivery. L'Union, 80, 1859. (Sch., 12, 319.)
- Moritz.**—Geburt in der Vagina bei völliger Verwachsung desselben. [Delivery in a Case of complete Closure of the Vagina.] Mon. Sch. f. Geb., Jan., p. 60. (Sch., 12, 318.)
- Ramsbotham.**—On Prolapsus of the Bladder before the Child's Head in Labour. Med. Times and Gaz., vol. xxxix, p. 3.
- Carson.**—Prolapsus of the Bladder during Labour. Ib., p. 171.
- Hecker und Kiferle.**—Fälle von Retroversio Uteri Gravid. [Cases of Retroversion of the Gravid Uterus.] Mon.-Sch. f. Geburtsk, Oct., 1858. Zeitsch. f. Wundärzt. u. Geb., xii, 3, 1858. (Sch. 3, 310.)
- Pingault.**—Retroversion des schwangern Uterus, reposition. [Retroversion and Reposition of the Gravid Uterus.] Rev. Thér. du Midi, xii, p. 525. (Sch., 2, 191.)
- Negrier.**—On Retroversion of the Pregnant Uterus. Gaz. de Paris, 28 and 29, 1859. (Sch., 11, 184.)
- Greaves.**—Labour complicated by Retroversion of the Uterus. Brit. Med. Jour., 1859, 269.
- Oldham.**—Case of Retroflexion of the Gravid Uterus during Labour, at Term. Obstet. Trans., vol. i, p. 317.
- Barnes.**—A Clinical Lecture on Retroversion of the Uterus in Pregnancy. Lancet, 1859, ii, 553.

- Godefroy.**—Repositionsverfahren bei Retroversio Uteri in der ersten Hälfte der Schwangerschaft. [On the Reposition of the Retroverted Uterus during the first half of Pregnancy.] *Gaz. des Hôp.*, 54, 1859. (Sch., 10, 75.)
- Evans.**—On Retroversion of the Uterus and Retention of Urine. *Lancet*, 1859, i, 556.
- Basham.**—Retroversion of the Uterus, causing Retention of Urine. *Ib.*, p. 439.
- Hall Bakewell.**—On a Case of Retroversion of the Uterus and Retention of Urine. *Ib.*, p. 363.
- Lehmann.**—Ueber die Ruptur des Uterus und der Vagina. [On Rupture of the Uterus and Vagina.] *Mon.-Sch. f. Geburtsh.*, xii, p. 408. (Sch., 5, 191.)
- Thorn.**—Rupture of the Uterus before Delivery. *Rep. of Obstet. Soc. of Edinb.*, *Edinb. Med. Journ.*, Oct., 1859, 370.
- Kapler.**—Fall von spontaner Ruptur des Uterus. [Spontaneous Rupture of the Uterus.] *Wien. Zeitsch. N. F.*, i, 50, 1858. (Sch., 5, 193.)
- Meacham.**—Rupture of the Uterus. *New York Jour. of Med.*, March, 1859, p. 287.
- Braxton Hicks.**—Cases of Ruptured Uterus during Parturition. *Guy's Hosp. Rep.*, 1859, p. 84.
- Atkins.**—Case of Ruptured Uterus. *Dub. Med. Press*, 1859, p. 116.
- Todd.**—A Case of Laceration of the Uterus. *N. Amer. Med.-Chir. Rev.*, Nov., 1859, p. 1052.
- Ross.**—Rupture of the Cervix Uteri. *Med. Circ.*, xv, 138.
- Aveling.**—Difficulty of Delivery in Rupture of the Uterus. *Med. Times and Gaz.*, xl, p. 502.
- Pagenstecher.**—Ruptur des Uterus bei osteomalachischer Becken. Entbindungen bei hochgradiger Beckenverengerung. [Rupture of the Uterus in Osteomalachial Pelvis.] *Monats. f. Geb.*, xii, p. 146. (Sch., 3, 311.)
- Wardleworth.**—On a Case of complete Inversion of the Uterus. *Lancet*, 1859, ii, 82.
- Lyall.**—Is the usual treatment of Post-partum Hæmorrhage correct? *Edin. Med. Jour.*, July, 1859, 84.
- Blease.**—Case of severe Post-partum Hæmorrhage. *Brit. Med. Journ.*, 1859, p. 43.
- Waller.**—On Transfusion of Blood; its history and application in cases of severe hæmorrhage. *Obstet. Trans.*, vol. i, p. 61.
- Purefoy.**—Cases of Labour complicated with Hæmorrhage. *Dub. Quar. Journ.*, Nov., 1859, 307.
- Plagge.**—Zur Diagnostik der Uterushämorrhagien. [A Case illustrating the Diagnosis of Uterine Hæmorrhage.] *Mon.-Sch. f. Geb.*, xiv, 55. (Sch., 11, 183.)
- Klaproth.**—Hæmorrhage during Labour from the neighbourhood of the Clitoris. *Monatsch. f. Geb.*, 11, p. 81. (Canst., vol. iv, p. 475.)
- Godfrey.**—Case of Internal Uterine Hæmorrhage. *Med. Circ.*, xv, 49.
- Holst.**—Fall von Schwangerschaft bei uterus bilocularis. [Pregnancy in a case of Uterus Bilocularis.] *Scanzoni's Beiträge z. Geb.*, vol. iii, p. 158. (Canst., vol. iv, p. 473.)
- Klaproth.**—Two Cases of Labour, in which Fibroid Tumours of the Uterus were present. *Monatsch. f. Geb.*, vol. xi, p. 85. (Canst., vol. iv, p. 474.)
- Spiegelberg.**—Labour complicated with Carcinoma of the Cervix. *Monatsch. f. Geb.*, vol. xi, p. 110. (Canst., vol. iv, p. 474.)

In one case described by KUSSMAUL, and in five others quoted, the ovule had apparently crossed the uterus and taken up its position in the Fallopian tube of the opposite side to that in which the corpus luteum was formed.

In HANCOX's case, the fœtus appeared to be over eight months old. The right Fallopian tube was enlarged to the size of the uterus at nine months, and rupture of the cavity had occurred, the fœtus being found in the abdomen.

PIERSON relates a case of (left) Fallopian pregnancy, fatal at about six weeks from rupture of, and hæmorrhage from, the posterior wall of the tube. HARLEY's case was fatal at the fifth month.

Cases of extra-uterine fœtation are described by RIZZO, VAN GEUNS and SCHRANT, MÜLLER, CAHEN, WALLER, CHEVILLON, REYMANN, and HALL DAVIS.

In Van Geuns and Schrant's case, a woman æt. 42, who had had seven children, the last four years before, died of pneumonia in the hospital at Amsterdam. For twelve years there had been a swelling in the abdomen towards one side, somewhat moveable, firm, and hard. On examination, the tumour was discovered to be the remains of a fœtus, enclosed in a firm, dense cyst, which cyst was adherent by a band to the anterior wall of the abdomen.

In Cahen's case, the remains of the fœtus were found in the abdomen. The woman died three months after the expected end of the pregnancy.

In Chevillon's case, the remains of a fœtus were removed from the abdomen four years after the commencement of the pregnancy. The mother did well.

In Waller's case, the remains of fœtal bones were passed by the rectum ten years after a supposed pregnancy.

In Hall Davis's case of ovarian gestation, the fœtus was contained in a cyst developed from the ovary, which cyst was situated between the uterus and rectum. It was punctured, and fluid evacuated, but the patient died, and the remains of the fœtus were found in the cyst.

The memoir of KROS, on the obliquely distorted pelvis, contains an account of those cases which occurred before 1839, unknown to Naegelé, also of the cases which have been published since that time. The progress of the labours in these cases is described, and the diagnosis pointed out.

MEISSNER gives a critical account of the several methods of treatment applicable when pelvic deformity prevents the delivery of a mature foetus. These are—1. Paracentesis, when dropsy of the head or abdomen of the foetus, or cysts, are present. 2. Diminishing or perforation of the head. 3. Cephalotripsy, or compressure of the head generally, after perforation only. 4. Embryotomy, rarely necessary. 5. Symphysiotomy and pelviotomy, not to be recommended. 6. Artificial abortion, admissible when the patient is not in a state of health to allow of the performance of the Cæsarean section with the prospect of a good termination, or when the continued growth of the foetus would imperil the life of the mother. 7. Artificial premature labour, best undertaken at the thirty-fifth or thirty-sixth week of gestation. Or, 8. The Cæsarean section, concerning which the author makes several interesting remarks.

SCHWEGEL describes a pelvis in which the ilia were spread out and flattened, increasing the size of the greater pelvis. Such a deformity is likely to lead to transverse positions of the child.

LAMBL gives the results of his inquiries into the nature and origin of inter-vertebral inflammation.

BIRNBAUM relates a case in which angular curvature in the lumbar region anteriorly prevented the head passing into the pelvis, and cephalotripsy was performed.

CUPPAIDGE and BRANCO relate the particulars of cases in which the vagina had become nearly closed by adhesions after delivery. In the former, these adhesions were cut through, and labour followed normally. In the latter, the septum was cut through, and a calculus an inch long was found between the septum and the child's head; the calculus is supposed to have escaped from the bladder through a fistula subsequently healed.

RAMSBOTHAM relates a case in which the bladder was prolapsed during labour. The treatment adopted, and which was efficacious, consisted in the use of the catheter. CARSON also relates a case somewhat similar.

HECKER relates a case of retroversion of the uterus during pregnancy, discovered and reduced at the sixth month. Miscarriage, however, followed. In KIFERLE's case reduction was effected at the third month, and the pregnancy went its full time. In PINGAULT's case reduction was effected at the same period.

NEGRIER states, that primiparæ are rarely affected with retroversion

during pregnancy. The cause is generally a sudden shake or exertion, or fall; the distension of the bladder is an effect. The method of reposition recommended is by the introduction of the hand into the vagina, and pressure upwards. GREAVES's patient was six months pregnant. The displacement was corrected, and a dead fœtus extracted. OLDHAM relates a case in which the patient had gone her full time, and labour supervened. The uterus was found completely retroflexed. Much difficulty was experienced in effecting the reposition of the uterus, when delivery easily followed. The retroflexion had existed apparently throughout the whole period of pregnancy. BARNES describes four cases of retroversion of the uterus during pregnancy. Retroversion of the gravid uterus may, according to him, occur gradually or in a sudden manner.

In effecting the reposition of the retroverted uterus, GODEFROY places the patient with her hands and head on the floor and the pelvis and legs on the bed. Three or four fingers are then introduced into the rectum, and the restitution effected.

EVANS, BASHAM, and HALL BAKEWELL record cases of retroversion of the uterus in which retention of urine formed the prominent symptom.

LEHMANN states that, of 7000 women delivered in the 'Gebäranstalt' at Amsterdam, rupture of the uterus occurred only three times: in private practice he has observed eight cases. In all the rupture took place during labour. It is in the third or fourth stages of labour that the uterine wall gives way, seldom until after the membranes have been broken. The author divides cases of rupture of the uterus into two classes—the spontaneous, and the accidental or mechanical ruptures. Under the first head are included cases where the cause is a pathological condition of the uterus itself, a degenerated state of the uterine tissue, fibroid formation combined with irregular contraction, or abnormal thinness of the uterus, softening, hysteromalachia, or thickening of certain parts on the fundus and body combined with great tenuity of the cervix. But rupture may occur when these pathological conditions are absent, as in cases of pelvic deformity, disproportions between the size of the child and the pelvis, transverse presentations, or in cases of hydrocephalus in which the pains are extremely violent. Here, however, the uterine tissue is rarely in a normal condition at the time of the rupture. The author believes that rupture only occurs in such cases when part of the uterine

wall has, in consequence of pressure, undergone contusion, softening, detritus, or even gangrene. To the accidental or mechanical class of cases belong those in which the rupture occurs in consequence of operations badly or roughly performed, such as turning, perforation, the use of hooks, tearing of the vagina by splinters of bone, &c. Rupture of the uterus occurs more frequently in multiparæ. The lower segment of the organ is generally the seat of the rupture; the placental surface is not more liable to rupture than other parts; it occurs more frequently on the posterior than the anterior wall; its direction is more generally horizontal than longitudinal; the body may be entirely torn from the neck. The edges of the rupture are jagged, the extent various. There may be simply small perforations in a portion of the uterus, the texture being there softened from continued pressure. The rupture may be complete or incomplete; in the latter case the whole thickness of the uterus is not torn through. The cervix uteri and the vagina are frequently involved in the rupture; more rarely the bladder and rectum. The rupture occurs suddenly, severe pain in the abdomen, followed by cessation of pains, escape of blood from the vagina, fainting, pulselessness, coldness of extremities, &c. The abdomen is changed, the parts of the foetus can be felt. Emphysema of the cellular tissue the author has not observed. The *prognosis* is very unfavorable, death generally occurring soon after the rupture. In rare cases the foetus has been retained in the abdomen, as in a case of extra-uterine pregnancy. In reference to the prophylaxis, it is recommended that the uterus be supported from without. As to the treatment, the foetus is to be extracted as quickly as possible; if it have escaped into the abdomen and is alive, the Cæsarean section is to be performed.

In THORN'S case of rupture of the uterus, the patient had been in labour two days. The child was delivered by the forceps. Death took place four days after, when it was found that the uterus was ruptured transversely at its lower and anterior part, the rent admitting all the fingers of one hand. There was no contraction of the pelvis.

KAPLER'S patient had been the subject of metritis, after a forceps delivery, four years before. On examination, it was found that there was pelvic deformity, prolapsus of the cord, and rupture of the uterus. Finally, turning was performed, and the child extracted, the head having been perforated. Death fifty-one hours

after. The rupture was found to have occurred on the right side of the cervix; old adhesions existed posteriorly.

MEACHAM'S patient, a primipara, experienced severe rigor and prostration, and died in a few hours after delivery of foetus and placenta. The uterus, posteriorly and above the cervix, was very soft and diffuent over a space two inches square, and there was a perforation at this spot.

HICKS relates one case in which the cervix uteri was ruptured during parturition; a second, in which the rent affected the body of the uterus, and blood escaped into the peritoneum; and a third, in which the child escaped through the opening into the peritoneal cavity. All the patients died. The frequency of this accident is, he believes, for undoubted cases, 1 in 5345; and including uncertain cases, 1 in 3563.

ATKINS records an instance of rupture of the uterus after labour had lasted four hours, and death in fifty-two hours. The head was "jammed" between the sacrum and pubis; the child, secundines, and much blood, had escaped into the abdomen through a rupture posteriorly. There was no external hæmorrhage, vomiting, collapse, or recession of head.

In TODD'S case the liquor amnii had been discharged when the rupture (at the fundus) occurred; it was the tenth pregnancy. Death followed.

ROSS records a case of rupture of the cervix uteri during labour. The patient did well.

In AVELING'S case, the arms presented, one foot was brought down, but further attempts at delivery failed, and the patient died. The right lower extremity was found protruding through a rent in the anterior and upper part of the body of the uterus, and formed an impediment to delivery.

In PAGENSTECHER'S case of osteo-malachial deformity of the pelvis, labour suddenly ceased, after lasting all day. The foetus had escaped through a rupture of the right side of the uterus.

WARDLEWORTH describes a case of complete inversion of the uterus, the placenta remaining attached. The cord was unusually short. The placenta was removed, and the uterus reduced. Subsequently a partial inversion occurred, which was reduced.

In the treatment of post-partum hæmorrhage, LYALL disapproves of the removal of clots from the interior of the uterus by the hand. It is better, he contends, to leave them alone, they being

nature's chief instruments in putting a stop to the further loss of blood.

WALLER's paper contains an historical account of the "transfusion of blood." He relates cases of post-partum hæmorrhage successfully treated by his method of transfusion.

PUREFOY relates six cases in which hæmorrhage complicated labour. He offers practical comments on the cases in question, and on the general treatment of hæmorrhage.

In HOLST's case of uterus bilocularis, labour supervened on two occasions before the proper time.

KLAPROTH records two cases of fibrous tumours of the uterus and pregnancy, one of which ended fatally.

In SPIEGELBERG's case of carcinoma uteri, a living child was extracted by the forceps. The mother died of the disease ten months subsequently.

B. ON UNUSUAL CONDITIONS ON THE PART OF THE CHILD.

Spondli.—Ueber mehrfache Geburten. [On Plural Births.] *Mon.-Sch. f. Geburtsk.*, xii, p. 456. (Sch., 10, 79.)

Fennerley.—Case of Triplets. *Gaz. de Par.*, 28, 1859. (Sch., 11, 187.)

Elsässer.—Case of Triplets. *Wurtemb. Corresp. Bl.*, No. 1. (Canst., vol. iv, p. 477.)

Domerc.—Case of Triplets. *Monit. des Hôp.*, 2. (Canst. vol. iv, p. 477.)

Marx.—Case of Triplets. *Journ. de Bord*, Oct., 1858. (Sch., 2, 193.)

Gasne.—Case of Triplets. *Gaz. des Hôp.*, 139, 1858. (Sch. 2, 193.)

Martin.—Four Children at a Birth. *Monatsch. f. Geb.*, 12, p. 224. (Canst., vol. iv, 477.)

Madge.—Report of a Case of Arm Presentation terminated by Spontaneous Evolution. *Lancet*, 1859, i, 535.

Evershed.—Case of Arm Presentation terminated by Spontaneous Expulsion. *Ib.*, p. 487.

Metzler.—Fall von Selbstentwicklung. [Case of Spontaneous Evolution.] *Met. Ztg. Russl.*, 43, 1858. (Sch., 3, 311.)

Bogg.—On a Case of Spontaneous Evolution. *Lancet*, 1859, vol. i, p. 30.

Spiegelberg.—On a Mechanical Impediment to Labour not sufficiently noticed. *Monatsch. f. Geburtsk.*, 1858.

Lize.—Tedious Labour in a Case of Pelvic Presentation; Emphysematous Condition of Fœtus, for some days previously dead; Sudden Death of Mother. *L'Union*, 57, 1859. (Sch., 8, 195.)

Myrtle.—Obstetric Cases. *Med. Journ.*, Aug., 1859, 178.

Doig.—The Result and Treatment of Cross Presentations. *Med. Times and Gaz.*, xl, 627.

- Fountain.**—Death and almost entire Absorption of a Fœtus of six months' development. *New York Journ. of Med.*, May, 1859, p. 418.
- Lizé.**—On the Difficulty of the Diagnosis of Hydrocephalus in Cases of Breech Presentation. *L'Union*, 71, 1859. (Sch., 8, 194.)
- Schultze.**—Die Geburtsgeschichte und section eines wasserköpfigen Kindes. [Delivery of an Hydrocephalic Fœtus.] *Monatsch. f. Geb.*, xi, p. 105. (Canst., vol. iv, p. 478.)
- Jacquemier.**—Extreme Size of the Fœtus considered as a Cause of Dystocia. *Ann. de Méd. et Chir.*, Jamain et Wahu, 1859, p. 295.
- Salzgeber.**—Verjauchung des Uterus. [Suppuration of the Uterus.] *Allg. Wien. Méd. Ztg.*, 46 and 47, 1858. (Sch., 3, 313.)
- Loescher.**—Birth of a Double-headed Monster. *Monatsch. f. Geb.*, xi, p. 432. (Canst., vol. i, 477.)
- Marnitz.**—Birth of Twins united at the Trunk. *Org. für die ges. Heilk. des Med.-Chir. Vereins. Jahrg.*, 6, part 4, p. 197. (Canst., vol. iv, p. 478.)
- Ramis und Breslau.**—Fall von Doppelmisbildung. [Double Malformation.] *Aertz. Int. Bl. Bayerns*, No. 8. (Canst., vol. iv, 478.)
- Koch.**—Death of the Fœtus at the twenty-fourth week; Retention in the Uterus for twenty-four weeks afterwards. *Wurtemb. Med. Corresp.*, No. 17. (Canst. vol. iv, p. 478.)

SPONDLI states, that in the Vienna hospital, triplets only occurred three times in 27,000 births. It most commonly happens that two of the three, present by the head, the third by the pelvis. The prognosis is unfavorable for mother and children. The contents of the uterus should be removed as quickly as possible.

In FENNERLEY's case the placentæ were connected by membranes. There was no vascular connexion between them. Each child had a special chorion and amnion. The children were living.

In MARX's case the diagnosis was made out before delivery. The woman was safely delivered of three boys; the first two were each a cranial, the third a breech presentation. Two of the placentæ were adherent at the edges, the third isolated. Both mother and children did well. In the case of GASNE, the first child was a female and the second a male, both cranial presentations. The third a male, a foot presentation. The first two had a common placenta, the third a distinct placenta. The mother and children all did well.

In MARTIN's case a woman, æt. 43, was delivered prematurely of four children. There were two males and two females. Three of the children lived a few days.

In EVERSLED's case of spontaneous evolution the child was putrid. In METZLER's case, the conjugate diameter measured $3\frac{1}{2}$ ". The cord was twisted round the neck, and still pulsated, but the

child could not be made to breathe. The whole delivery took place in ten minutes. In BOGG's case the child was stillborn.

SPIEGELBERG calls attention to the fact, that labour is frequently arrested in its course by a too great flexion of the head upon the breast. It rests on the perinæum, and the labour is delayed unnecessarily. In such cases, heretofore considered as cases of weak uterus, the careful use of the forceps is recommended.

In each of the two cases related by MYRTLE, the presentation was facial. The usual term of pregnancy was believed to have been exceeded in each case fourteen days, and in both, too, it was necessary to apply the long forceps.

In FOUNTAIN's case the expulsion of the fœtus did not take place until five months subsequently to its death.

In a case of hydrocephalus recorded by LIZÉ, there was a breech presentation. He remarks on the difficulty of the diagnosis in this and similar cases. In SCHULTZE's case the breech also presented, the head was perforated, and delivery easily effected.

JACQUEMIER relates two cases in which, the head having been delivered, the extreme size of the body prevented the completion of the labour. In one case, the abdominal viscera were removed; in the other, the woman died undelivered. In the first case, the weight of the child was 5600 grains (about $12\frac{1}{2}$ lbs.), in the second, 9 lbs. In the latter the symphysis pubis was divided (after death) before extraction could be performed.

SALZGEBER records a case in which the fœtus appears to have remained in the uterus for nearly two years, at the end of which time a purulent discharge from the vagina, and from an opening at the umbilicus, occurred. The remains of a fœtus were found in the uterus. The umbilical opening communicated with the uterus. The patient died.

In LÖSCHER's case of double-headed fœtus, one head being delivered, it was necessary to amputate it, in order to perform the operation of turning.

In MARNITZ's case the twins were united from the sternum to the umbilicus. There was a single funis umbilicus and placenta.

In RAMIS and BRESLAU's case the double child was born alive, but both died shortly after, the death of one preceding that of the other by seven minutes.

C. ON ABNORMAL CONDITIONS OF THE PLACENTA AND FŒTAL
APPENDAGES.

Donkin.—Suggestions on the Pathology and Treatment of Placenta Prævia. Ed. Med. Journ., April, 1859, p. 883.

Glisczynski.—Ueber Placenta prævia und deren Behandlung. [On Placenta Prævia and its Treatment.] Med. Centz. Ztg., 101, 1858. (Sch., 5, 191.)

Barnes.—Some recent Cases (fourteen) illustrating the Physiology and Treatment of Placenta Prævia. Obstet. Trans., vol. i, p. 83.

Morris.—Case of Placenta Prævia. Med. Times and Gaz., xl, 270.

Stephens.—Case of Placenta Prævia. Brit. Med. Journ., 1859, 244.

Foucart.—Placenta Prævia; Hæmorrhage continuing for six weeks; Death. Ann. de Méd. et Chir., Jamain et Wahu, 1859, p. 284.

Jardine Murray.—Placenta Prævia; Air-pessary used to plug and dilate the Os Uteri. Med. Times and Gaz., xxxix, 596.

Rainy.—Case of Placenta Prævia. Edin. Med. Journ., Dec., 1859, p. 533.

Spiegelberg.—Cases of Placenta Prævia treated by the use of the Colpeurynter. Monatsch. f. Geb., xi, 120. (Canst., vol. iv, 484.)

Ramsbotham.—Case of Dropsy of the Amnion; Twins. Med. Times and Gaz., xxxix, 261.

On the Inefficacy of Cold Injections into the Umbilical Veins in Cases of Adhesion of the Placenta. Gaz. des Hôp., 74. (Canst. vol. iv, p. 478.)

Fritz.—Ueber Entstehung der Hydatidenmole. [On the Origin of the Hydatid Mole.] Würtemb. Corr. Bl., 20, 1859. (Sch., 9, 329.)

Hamon.—Hydatid Mole complicated with Albuminuria. Gaz. des Hôp., 121, 1858. (Sch., 2, 195.)

Graily Hewitt.—On the Hydatidiform or Vesicular Mole; its nature and mode of origin. Obstet. Transact., vol. i, p. 249.

Koeberle.—On the Death of the Fœtus in Utero. Presse Méd., 45, 1858.

In cases of placenta prævia, DONKIN insists on the importance of the shortening of the cervix, which is, he contends, a necessary consequence of its expansion, and a chief cause, by constricting the vessels, of the cessation of the hæmorrhage. He suggests, as a method of treatment, the mechanical expansion of the cervix by means of a sponge-tent specially constricted for the purpose, conjoined with the use of ergot or galvanism.

GLISCZYNSKI states, that from the records of the Klinik at Breslau, it appears that in 10,540 cases, placenta prævia occurred ninety times. Deficient involution of the uterus in women who have quickly succeeding pregnancies, or diseased conditions—such as uterine catarrh, inflammation after former labours, &c.—are, he believes, the chief causes of this condition, which is mostly present in multiparæ. In the 90 cases, 62 children lived, 28 died; 76 mothers lived, 14 died.

In 9 cases, the *accouchement forcé* was necessary ; two of the mothers died.

BARNES relates fourteen cases of placenta prævia. The deductions drawn by him are as follows : Arrest of hæmorrhage occurs when the placenta has become detached for a certain distance from the cervix—physiologically, therefore. The posterior or usual position of the placenta in these cases favours the occurrence of transverse presentations. When the cord is attached to the edge of the placenta, it is very liable to be prolapsed in these cases. Uterine inflammation and puerperal fever are likely to ensue in cases of placenta prævia, a danger increased by forcible manual efforts, and the now very vascular condition of the lower part of the uterus. In some cases, the hæmorrhage having ceased and the os being dilated to the size of a crown-piece, interference in labour is not necessary *quoad* the placenta. It is expedient to hurry the period of dilatation of the os in these cases, as after a certain point of dilatation is reached no hæmorrhage occurs. Rupturing the membranes, plugging the cervix, ergot and galvanism, often suffice to produce the requisite expansion. In those cases where forced delivery or artificial total detachment of the placenta are dangerous operations, the separation of the cervical zone by the index finger is safe and feasible.

STEPHENS and RAINY record cases in which separation of the placenta was performed, and no hæmorrhage followed. In MORRIS's case, the hæmorrhage continued after such separation. JARDINE MURRAY records a case in which the air-pessary was employed usefully as a plug and dilator of the cervix uteri. In two cases of placenta prævia treated by the use of the colpeurynter, SPIEGELBERG states that the children were born dead, and that he would prefer using linen on the next occasion.

In RAMSBOTHAM's case of twins there was an excessive quantity of fluid present, but in one amnionic cavity only.

The point in FRITZ's case to which attention seems to be directed is the fact of an ovum from an ovary affected with cystic disease, giving rise subsequently to an hydatid mole.

HAMON records a case of hydatid mole. The uterus was as large as at six months. In addition to the usual symptoms, the woman suffered from albuminuria and anasarca.

GRAILY HEWITT, after describing the particulars of a case in which a very perfect and early specimen of the hydatidiform or vesicular mole was expelled from the uterus, offers the following conclusions

respecting the nature and mode of origin of the change in question. He dissents entirely from the "cyst" view of Mettenheimer and Paget, and considers that the bladder-like enlargements are merely altered chorion villi; not a new formation, but simply an alteration and degeneration of previously existing structures. He contends that the generally received opinion as to its mode of origin is incorrect, and that the foetus dies first: the chorion villi becoming thus arrested in their development, but not in their growth, the effects witnessed result. After the villi have passed a certain period of development, no hydatidiform change can take place. Lastly, the author considers—1. The question as to the possibility of a portion of retained placenta taking on the change in question. 2. The question as to whether true hydatids can be expelled from the uterus, and the means of distinguishing the true, from the vesicular bodies the result of chorionic degeneration.

By the term "internal abortion of the ovum," KOEBERLÉ understands the death of the foetus in utero at any period of pregnancy. In such cases the ovum is not always expelled; its coverings continue to grow, whilst the foetus degenerates or is mummified. These ova do not remain in the uterus longer than nine months, seldom longer than six. Mostly, those expelled before the third month contain no foetus. Such foetal ova become later "moles." The growth and development of the foetus are arrested suddenly, or may not have begun at all. The causes of this arrest are disease or death of the ovum, from mechanical disturbance thereof, from disease of the mother, or other unknown causes. These moles generally contain a good deal of fluid, which may be expelled in consequence of the bursting of the amnionic sac, and the bag collapsing, the mole may remain in the uterus a considerable time. After the fifth month, *ballottement* enables us to distinguish between a foetal and an afœtal ovum. The author does not believe in the existence of hydrometra without previous conception.

ON OBSTETRICAL OPERATIONS.

Godefroy.—Incision of the Os Uteri. Journ. des Connais. Méd., p. 540. (Canst., vol. iv, 479.)

Braun.—Die uterinale Katheterisation mit Darmsarten behuf der Erweckung der künstlichen Frühgeburt. [Induction of Artificial Premature Labour by the use of Catgut.] Wien. Med. Wehnsch., 46, 1858. (Sch., 5, 190.)

- Reymann.**—Künstliche Frühgeburt mittels Press-Schwamm. [Induction of Artificial Labour by the Sponge-tent.] Pr. Ver.-Ztg. N. F., ii, 21, 1859. (Sch., 8, 193.)
- Hausmann und Brock.**—Künstliche Frühgeburt nach Cohen's Methode. [Induction of Artificial Premature Labour by Cohen's Method.] Würtemb. Corr.-Bl., 32 und 39, 1858. (Sch., 3, 311.)
- Guerdan.**—Die Künstliche Frühgeburt als Ersatz des Kaiserschnitts. [Artificial Premature Labour as a substitute for Craniotomy.] Aertzl. Mittheil. aus Baden, 24, 1858. (Sch., 5, 190.)
- Maunoury.**—Induction of Premature Labour in the eighth month by means of Warm Injections into the Neck of the Uterus. Gaz. de Paris, 3, 1859. (Sch., 5, 190.)
- Trouncer.**—On the Induction of Premature Labour in a Case of Distorted Pelvis. Obstet. Trans., vol. i, p. 236.
- Germann.**—Fälle von künstlichen Erregung der Frühgeburt, &c. [Cases of Induction of Premature Labour.] Mon.-Sch. f. Geb., xii and xiii. (Sch., 11, 185.)
- Birnbaum.**—Cases of Artificial Premature Labour. Deutsch Kl., 17, 19. (Canst., vol. iv, 479.)
- Lumpe.**—Cases of Artificial Premature Labour. Wiener Wochens., i, p. 10. (Canst., vol. iv, 479.)
- Riedel, Hecker, Crede, and Hanemann.**—Cases of Artificial Premature Labour. Monatsch. f. G., xi, 1, 11, 126, and 388. (Canst., vol. iv, 480.)
- Coesfeld.**—Artificial Premature Labour. Medic. preuss. Zeit., No. 9. (Canst., vol. iv, 480.)
- Groeningen.**—Artificial Premature Labour. Orig. f. die ges. Heilk. des Med.-Chir. Vereins., 6 Jahrg., part 4, p. 213. (Canst., vol. iv, 480.)
- Stolz.**—Artificial Premature Labour. Gaz. Méd. de Strasb., No. 3. (Canst. vol. iv, 481.)
- Godefroy.**—Six Cases of Artificial Premature Labour. Journ. des Conn. Méd., 24, 1859.
- Finizio.**—Artificial Premature Labour. Gaz. des Hôp., No. 24. (Canst. vol. iv, 481.)
- Mayer.**—On Artificial Premature Delivery. Monatsch. f. Geburts., xi, 100. (Canst., vol. iv, 481.)
- Giordano.**—Artificial Premature Labour. Gaz. Méd. Ital. Lomb., No. 51, p. 444. (Canst., vol. iv, 481.)
- Ross.**—Case of Premature Labour. Med. Circ., xiv, 98.
- Mackenzie.**—Notes of a Case of Cancer of the Uterus and Rectum, in which Abortion was produced. Obstet. Trans., vol. i, p. 11.
- Esterle.**—Beobachtungen über die aussere Wendung. [On External Turning.] Ann. Univ., April, 1859. (Sch., 10, 76.)
- Noeggerath.**—The Operation of Turning by External Manipulations, considered from an historical and practical point of view, with cases. New York Jour. of Med., Nov., 1859, 329.
- Mardurowicz.**—Umwandlung-einer Gesichts in eine Beckenendlage, &c. [Turning of a Facial into a Pelvic Presentation, &c.] Oesterr. Ztsch. f. Prakt. Heilk., v, 20, 21, 1859. (Sch., 8, 195.)
- Alex. R. Simpson.**—Turning v. the Long Forceps; illustrative cases. Med. Times and Gaz., xxxix, 465.

- Buhrlen.**—Accouchement forcé. Würtemb. Méd. Corresp., 61, 33. (Canst., vol. iv, 482.)
- Fleming.**—The Operation of Turning as a Substitute for Craniotomy in Head Presentations in Cases of Deformed Pelvis. Med. Circ., xiv, 158.
- Mackenzie.**—Case of Craniotomy, in which Delivery was readily effected by Turning after Perforation, instrumental extraction being found impossible. Obstet. Transact., vol. i, p. 267.
- Lehmann.**—Case of Craniotomy and Turning. Monats. f. Geburt., xi, 54. (Canst., vol. iv, 484.)
- Kirsteller.**—Der Mechanismus der Zangenoperation. [On the Mechanism of Forceps Operations.] Mon.-Sch. f. Geburtsk., xiii, pp. 396—414, Jan., 1859. (Sch., 9, 326.)
- Harper.**—On the more frequent Use of the Forceps as a means of lessening both Maternal and Fœtal Mortality. Obstet. Trans., vol. i, p. 142.
- Cummins.**—On the Use of the Forceps. Dub. Quart. Jour., May, 1859, 476.
- Ramsbotham.**—Case of Labour terminated by the Long Forceps. Med. Times and Gaz., xxxix, 536.
- Priestley.**—A Case of Labour complicated with Fibrous Tumour of the Uterus; Delivery by Long Forceps, &c. Obstet. Trans., vol. i, p. 217.
- Mattei.**—Description of the Leniceps. Lancet, 1859, i, 151.
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- Esterle.**—Case of Cæsarean Section (after death of mother). Ann. Univers., Marz, 546. (Canst., vol. iv, 483.)
- Tyler Smith.**—On the Abolition of Craniotomy from Obstetric Practice in all cases in which the Fœtus is Living or Viable. Obstet. Transact., vol. i, p. 21.
- Greenhalgh.**—On Craniotomy. Lancet, 1859, i, p. 486.
- Braun.**—Ueber die Neuen Methoden der Craniotomie des Fötus. [On the New Methods of performing Craniotomy.] Wien. Ztsch., N. F. ii, 3, 1859. (Sch., 5, 193.)
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Druitt.—Case of Craniotomy. *Obstet. Trans.*, vol. i, p. 81.

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Becker.—De Cephalotripsia. Dissert. Inaugur. *Leipzig*, 1858. (Sch., i, 63.)

Schultze.—Ueber die Indikation zur Kephalotripsie. [On the Indications for the Performance of Cephalotripsy.] *Med. Centr. Ztg.*, 50, 51, 1858. (Sch., i, 63.)

Dubois.—Case of Cephalotripsy. *Rev. Méd.*, Janvier, p. 89. (Canst., vol. iv, 484.)

Richard.—On Cephalotripsy by the combined use of the Perforator and the Hand. *Monatsch. f. Geb.*, xi, 389. (Canst., vol. iv, 484.)

Wolf.—Kephalotripsis nach Perforation des Kopfes, wegen Beckenenge. [Cephalotripsy after Perforation of the Head.] *Aertz. Mitth. aus Baden*, xiii, 8, 1859. (Sch., 12, 320.)

Nusser.—Trepanation und Enthirnung des Kindeschädels wegen Stirnlage bei einer Zehnfggebärender. [Trepanning and Excerebration in a Case of Frontal Presentation.] *Oesterr. Ztschr. f. prakt. Heilk.*, v, 28. (Sch., 12, 319.)

Cristoforis.—Die Resectio Pubica subperiosteal als Ersatz für die schwerern geburtshülftlichen Operationen. [On Subperiosteal Pubic Resection as a Substitute for the Severe Obstetric Operations.] *Ann. Univ. Agosto, Sett.*, 1858, Genn., 1859. (Sch., 8, 196.)

Jocolucci.—Case in which Synchondrotomy was performed. *Lo sperimentale* *Okb.*, 10. (Canst., vol. iv, 483.)

GODEFROY relates two cases in which the os uteri was incised in cases of convulsions. Both mothers did well.

BRAUN's new method of inducing premature labour consists in the introduction of a piece of catgut, several inches long, into the uterus, between the membranes and the uterine parietes, and allowing it to remain until the membranes have been ruptured by the pains which are excited by its presence. The catgut is from two to three lines in thickness, its extremities softened by hot water, and well oiled previous to the introduction. Labour begins in from six to twenty hours after the operation.

REYMANN relates two cases in which the sponge-tent was successfully employed for the purpose of inducing premature labour.

Cohen's method of inducing artificial premature labour consists in the injection of warm water into the uterus. In two cases reported by HAUSMANN labour set in after two injections in one case, and after three injections in the other. In BROCK's case three injections and two doses of ergot were employed. The children were born alive, but one died soon after.

In GUERDAN's case, Cohen's method was had recourse to in two successive pregnancies, at the thirtieth week and at the thirty-fifth week. The first child survived seven hours only, the second did well.

In the case related by MAUNOURY, warm injections into the neck of the uterus were employed, and the child preserved. The patient had previously been delivered by the forceps, the child not surviving.

In TROUNCER's case, premature labour was successfully induced in two successive pregnancies by the use of injections into the cervix uteri.

GERMANN records, as the basis of an elaborate paper, twenty-three cases of the artificial induction of premature labour, out of 339 operations and 1019 labours, the large proportion of which he explains by the unusual frequency of rachitic pelvic distortion in the particular neighbourhood the scene of his observations, and his practice of ascertaining by examination the state of the pelvic diameters during pregnancy. The greater mortality for the children the earlier the operation is performed, is not dependent, he remarks, entirely upon the degree of pelvic contraction, state of development, &c., but is partly explainable by the fact that the presentation is often found defective in operations performed too early. The general indications for the operation, to be gathered from the examination as to the state of the pelvis, are given. The *mode* adopted in the twenty-three cases was various; in only nine of them was one method exclusively adopted, viz., one by the method of Kiwisch, five by that of Cohen, two by that of Braun, and one by that of Scanzoni (mammary). In the other cases, a combination of more than one method was necessary. Cohen's method was employed singly or otherwise in nine cases, and of these nine cases the children were born alive in seven instances.

BIRNBAUM finds uterine injections most effectual in inducing labour. LUMPE gives the preference to the so-called Cohen's method, employed also in cases related by RIEDEL, HECKER, CREDÉ, and COESFELD. The latter uses water colder (50—59° Fahr.) than that usually employed, by which the effect is more rapidly produced. In the cases by GRÖNINGEN, STOLZ, and GODEFROY, the uterine douche (Kiwisch's method) was employed. FINIZIO records the first case of the induction of artificial premature labour in Naples. The method employed was the use of the warm douche. GIORDANO employed cauterization of the "condutto uterino" as a means of inducing labour in a case of pelvic deformity.

The principal conditions in which the operation for the induction of premature labour is indicated are, according to MAYER—extreme

degrees of pelvic deformity; extreme narrowing of the vagina; presence of large tumours in the rectum and vagina; retroversion of the uterus, where the reposition cannot be effected. In Ross's case, other measures having been unavailing, the membranes were punctured. In MACKENZIE's case, abortion was induced at the fourteenth week by means of the warm douche and galvanism.

ESTERLE, in an essay on external turning, states that from the sixth to the eighth month of pregnancy, he has frequently noticed spontaneous turning to occur in cases in which the position was unnatural. He proposes the operation of external turning in those cases where the position is, towards the end of pregnancy, ascertained to be not natural. Full particulars are given as to the best methods of performing the necessary examination and operation. In 500 cases examined in the eighth month, 22 instances of cross presentation were met with; of these 9 were rectified spontaneously, and in 10 the external turning was performed. In 2 cases the turning upon the head was performed by internal combined with external manipulation, and in 1 case internal turning upon the breech was performed. In the 10 cases of external turning, placenta prævia was present once; in 2 cases, pelvic narrowing of the first degree; in 3, excessive obliquity of the uterus. Of these 10 cases, 9 had been delivered regularly, the tenth was still undelivered.

NOEGGERATH gives an historical account of external turning, and records the experience of obstetric operators in reference thereto. The chief difficulty in reference to the operation is in the diagnosis of the position; this is only to be got over by great care and attention.

In a case related by MARDUROWICZ, the presentation was a facial one, and Braun's colpeurynter was used to prevent the escape of the liquor amnii. At the end of a certain time this presentation was changed, under the influence of the contractions of the uterus, from a facial to a pelvic one, and the delivery effected.

ALEX. R. SIMPSON relates three cases in which turning was had recourse to, with success, in place of the use of the long forceps.

BUHLEN relates a case of turning, followed by the accouchement forcé, in a patient suffering from convulsions at the eighth month. There was great rigidity of the os uteri, but the delivery of the child (putrid) was effected in two hours. The mother did well.

In MACKENZIE's case, the conjugate brim-diameter was two and three eighths inches. Craniotomy was performed, and delivery effected after subsequent version.

In LEHMANN's case, recourse was had to a similar expedient.

According to KIRSTELLER, the effects produced by the forceps may be divided into four groups. *Pressure*, is the most important and the most simple of these: its degree depends on the lengths of the handles and blades of the instruments. The amount of pressure exercised by the hands varies, in slight cases being five to eight pounds, in very extreme cases fifteen to thirty pounds. If the pressure be too great, difficulty is created rather than removed. *Traction*, generally exercised in the direction of the axis of the instrument. *Transverse movement*, in effecting which the two blades of the forceps act as a single lever. And *rotatory movement*.

HARPER, in advising the more frequent use of the forceps, insists that the ill effects usually attributed to the instrument are due to its abuse. Mere duration is, he contends, an element in the mortality in unassisted tedious labours, and this affords an argument for the more frequent use of the forceps. The various states during which the use of the forceps is called for are alluded to, and especial reference made to cases of inertia or sluggishness of the uterus, in which class of cases he invariably uses the short forceps in preference to the administration of ergot. He is of opinion that the earlier the forceps are used, in proper cases, the more maternal and foetal lives will be saved.

CUMMINS also advocates the more frequent use of the forceps, considering that much infant and maternal mortality might thus be prevented.

RAMSBOTHAM and PRIESTLEY relate cases of delivery by the long forceps; in the former's case the brim was contracted, in the latter's case a fibrous tumour impeded delivery.

MATTEI has invented a new instrument for the extraction of the child, differing from the ordinary forceps in being very short, and by the branches working upon a transverse wooden handle. It is stated that the instrument can be used without knowledge of the mother, and that it acts very gently on the child.

PAGENSTECHER relates four cases of Cæsarean section. In the first there was pelvic narrowing from osteo-malacia. The iliac bones were so contorted that the pelvic aperture resembled in shape that of a keyhole. The result was favorable for mother and child. In a second case, in which the conjugate diameter measured $2\frac{1}{4}$ " (rachitis), the Cæsarean section was also performed with a successful issue to both mother and child. In a third case, the opera-

tion had been already performed once, with a favorable result. The patient was much deformed from osteo-malacia, and died eighty hours after the operation. A fourth case, reported in the 'Mém. de l'Acad.,' 1858, p. 468, by Borie, had a favorable issue for mother and child. The patient was rachitic, and the conjugate diameter from two to two and a half inches.

In ALONSO's extraordinary case, no means were effectual in overcoming what appeared to be rigidity of the os uteri, and after a time portions of a fœtus, with much puriform matter, were expelled. The uterus could not be made to contract, nor could the os be dilated. Finally, the Cæsarean section was performed, and the remains of a fœtus extracted. The result promised to be a favorable one as regarded the mother.

M'CLELLAND reports a case successful for both mother and child. The antero-posterior diameter was one inch and five eighths, the transverse one inch and a half, the sacrum curved, and the pubic angle very acute.

In HAFNER's case the child was saved, the mother died six days after. The antero-posterior diameter was 1" 6"; transverse, 4" 8"; oblique, 4" 2" (Wurtemberg measure).

In MURPHY's case the conjugate diameter was barely two inches; the space round the brim was hardly larger than a florin; the cause of the deformity was mollities ossium. The child was dead before the operation was commenced. The mother died two days after. The author discusses the general question of the necessity and justifiability of the operation. The paper concludes with a table of cases of Cæsarean section reported in Britain and America.

In DUCLOS's case, fibrous tumours of the uterus impeded delivery. Mother and child were saved. GUILLAUME reports a case of Cæsarean section under like conditions. The child was saved; the mother died in six days. GROESBECK and FREERIEES report successful cases. GALLIGANI's case was successful for mother and child. GIORDANO has operated four times in sixteen years. The children were saved; the mothers died. ESTERLE's was a post-mortem operation. The child lived for two hours.

TYLER SMITH endeavours to show that, "with the proper and scientific use of all the means at our command, it may be laid down as a general rule, that craniotomy should not be performed in the case of a living fœtus after the period of viability has been reached."

He contends that up to the present time the measures which are the alternatives of craniotomy have never been carried out in practice to their full and legitimate extent. Turning, the use of the forceps, the induction of premature labour, &c., are measures which might be adopted very much more extensively than they have been, and the necessity for craniotomy in the case of a viable fœtus thus altogether obviated.

GREENHALGH contends that there is little, if any, difference in the mortality to the mothers from craniotomy in great distortion of the pelvis, and the Cæsarean section, when performed shortly after the commencement of labour; whereas there is a great saving of fœtal life in the latter case.

BRAUN details the new methods of performing craniotomy. He speaks most favorably of Kiwisch's method, by means of a straight trepan, followed by the use of the cephalotribe.

SIMPSON introduces a new variety of craniotomy, under the name cranioclasm. The peculiarity of the operation is the fracturing of the base of the fœtal skull behind the foramen magnum and at other points. After perforating the skull in the usual manner, a pair of forceps is applied, one blade within, the other outside, the skull, so as to grasp the occipital bone close up to the foramen magnum, when, by a slight twisting movement, the fracture is effected and the head diminished at its firmest and most unyielding part.

DRUITT relates a case in which, after the operation of turning, the head could not be extracted, and craniotomy was had recourse to. The head was extremely hard.

LEVY proposes a new operation in certain cases of arm presentation, where turning cannot be effected, and evisceration, &c., are usually contemplated. The operation consists in the separation of the scapula and arm, as a substitute for the expedients usually had recourse to. After the separation in question has been effected, turning can be easily performed. The method has been found by experience to be practicable and useful.

BECKER relates three cases in which cephalotripsy had been performed. He rejects the instrument of Baudelocque, and prefers that of Busch. The result, so far as the mother was concerned, was favorable in the three cases. SCHULTZE considers that a conjugate diameter of 2" is not an absolute contra-indication to the use of the cephalotribe. In one case the conjugate diameter was 2" 2'''

and after the use of the instrument a mature foetus was extracted. DUBOIS and WOLF also record cases of cephalotripsy.

NUSSER's case was one of frontal presentation, in which, the forceps having been unsuccessfully used, the trepan was employed, and delivery effected.

CRISTOFORIS proposes as a substitute for symphysotomy, pubiotomy, and the Cæsarean section, a new operation, viz., the partial or total superiosteal resection of the os pubis, at the horizontal and descending rami. He describes six modifications of the operation, adapted to different cases, in each of which different parts of the bones are to be removed, according to the varying degrees of narrowing of the pelvic cavity. These several operations he has performed on the dead body, and has practised them on living bitches. He believes that he has proved, that the operation is practicable, the chief difficulty consisting in the separation of the periosteum behind the pubic bone; that it answers its purpose; that it must be considered *a priori* as less severe than the operations it is proposed to be substituted for; and that the parts removed are replaced subsequently.

JOCOLUCCI relates a case in which, at the eighth month, synchondrotomy was performed, to allow the head to enter the pelvis. The conjugate diameter was $2\frac{1}{2}$ " The child died soon after delivery, the mother eighteen days subsequently.

ON EMPLOYMENT OF CHLOROFORM, SPECIAL REMEDIAL AGENTS, ETC.

Levy.—On the Employment of Chloroform in the Royal Lying-in Hospital at Copenhagen. *Bibliothek for Laeger*, vol. 10, p. 443. (Sch., 4, 40.)

Kidd.—Chloroform in Midwifery Practice. *Med. Circ.*, xiv, 1859, 290.

Silbert.—On the Employment of Local Bloodletting in Pregnancy. *Ann. de Méd. et Chir.*, Jamain and Wahu, 1859, p. 272.

Beauvais.—On Uva Ursi, considered specially as an Obstetrical Agent. *Ann. de Thérap.*, 1859, 49.

Déville.—Statistical Researches on the Action of Ergot in Parturition. *Arch. Gén.*, March, 1859. (*Brit. and For. Med.-Ch. Rev.*, July, 1859, 277.)

LEVY details the general result of the employment of chloroform inhalation in a number of cases of natural labour, in most of which the full narcotism was produced. Chloroform has the same effect on pregnant women and on women during labour as on other individuals.

In two cases only, bad results (convulsions, extreme faintness) followed. In no case was the child injuriously affected by the use of the chloroform. Chloroform has, he believes, a weakening action on the contractions of the uterus, but this only applies to the periodic "pains" dependent on the spinal nervous system; the contractility of the uterus derived from the sympathetic is not, he thinks, affected by the chloroform. The use of chloroform does not predispose to post-partum hæmorrhage, or to retention of the placenta. Chloroform has a disturbing action on labour, and it somewhat postpones the period of delivery. In abnormal labours, chloroform is advantageously employed. In very rapid labours, the pains are too quick to allow of full inhalation. In cases of hyperæsthesia of the internal sexual organs, causing delirium or hysterical convulsions, and where spasmodic conditions of the uterus are present, it is very useful; also in *tetanic conditions* of the uterus, deformity, cross-presentations, &c., previous to the necessary operative delivery, especially before turning. In *puerperal convulsions*, its use is, he thinks, contra-indicated. In two cases, after copious venesection, it had no decided effect. In 53 cases, the operation of turning was performed under full narcotism, and in 2 cases after embryotomy; 3 out of the 53 died, 1 was a case of embryotomy, 1 after tetanus uteri, and 1 of acute peritonitis; 30 of the 53 children were born alive. In forceps operations he has not extensively tried it. In the few cases in which cutting-instruments or the cephalotribe had been used, chloroform was always employed.

KIDD's paper, on "Chloroform in Midwifery Practice," contains the recently expressed opinions of Rigby and Murphy on the subject, and an account of discussions thereon in Paris and in Germany.

SILBERT contends that local depletion is of very great service in various accidents and disorders to which the pregnant woman is liable, and several cases are cited to show the advantages which have been derived from this mode of treatment.

BEAUVAIS is of opinion that ergot may be perfectly replaced by *Uva ursi*. It is given in the form of infusion or decoction in cases of tedious labour or in menorrhagia.

DEVILLE asserts that he has, from the examination of various documents, arrived at the conclusion that one seventh of 515 still-born children perished from the use of ergot.

STATISTICS, ETC.

- Clay.**—Statistics and Observations on the Liability to Abortion. *Glasg. Med. Journ.*, Jan., 1859, 408.
- Barnes.**—Clinical History of the Eastern Division of the Royal Maternity Charity during the Year ending Sept. 30, 1858. *Dubl. Quart. Journ. of Med. Sc.*, Aug., 1859.
- Ellis.**—Analysis of 2157 Cases of Labour. *Brit. Med. Jour.* 1859, 46.
- Grenser.**—Forty-third Annual Report of the Lying-in Hospital of the Royal Med.-Chir. Acad. at Dresden. *Monats. f. Geburts*, xii, Dec., 1858.
- Martin.**—Report of the Obstetrical and Gynæcological Clinic of Jena. *Monatsch. f. Geb.*, xii, 3, 1858. (*Canst.* vol. i, p. 485.)
- Habit.**—Annual Report of the Obstetric Clinic for Midwives in Vienna for 1859. *Zeitsch. d. Gesell. d. Aertz. zu Wein.*, 21, 22, 23, 1858.
- Schmidt.**—Report of the Obstetrical Clinic of Prof. Scanzoni at Würzburg, from 1853 to 1856. *Scanzoni's Beitr. z. Geburtsk.*, 3, 1858.
- Mason.**—Report on Practical Obstetrics for the year 1858. *North Amer. Med.-Chir. Rev.*, May 1859.
- Lee.**—Clinical Midwifery. *Med. Times and Gaz.*, xxxiv, 440; xl, 330, 377, 474.
- Tilanus.**—Contributions to the Statistics of the Mechanism of Delivery. *Archiv f. d. Holland. Beit.*, i, p. 144, (Sch. 7, 30.)
- Rousset.**—Report of the Obstetric Clinique at Bordeaux for the years 1855-56. *Journ. de Méd. de Bordeaux*, Mai.
- Elsasser.**—Report of the Lying-in Hospital at Stuttgart, from July, 1856, to July, 1857. *Med. Wurt. Corresp.*, Bl. 1.
- Smith.**—A Statistical Report of thirteen hundred Midwifery Cases attended in private practice. *Lancet*, 1859, ii, 481.
- Dunn.**—On the Statistics of Midwifery from Private Practice (4049 cases). *Obst. Trans.*, vol. i, p. 279.
- Rigden.**—An Analysis of 2000 consecutive Cases in Midwifery Practice. *Brit. Med. Journ.*, 1859, 867.
- Harrinson.**—Statistics of 1000 Cases in Obstetrics. *Brit. Med. Journ.* 1859, 869.
- Bell.**—On the relative frequency of the different Positions of the Child's Head at the Commencement of Labour, &c. *Glasg. Med. Journ.*, Oct., 1859, 295.
- R. Uvedale West.**—A Statistical Study of the causes and relative proportions of Still-births in Private Country Practice. *Lancet*, 1859, ii, 478.
- Hadaway.**—Stillborn children. *Lancet*, 1859, ii, 481.

DISEASES OF WOMEN;

INCLUDING THE PHYSIOLOGY AND PATHOLOGY OF THE
FEMALE SEXUAL ORGANS.

GENERAL TREATISES, PHYSIOLOGY, ETC.

- Neuville.**—Histoire philosophique et médicale de la femme, considérée dans toutes les époques principales de la vie, &c. [A Treatise on the Philosophical and Medical History of Woman, &c.] Second edition, *Paris*, 1858, 3 vols. (Sch., 10, 141.)
- Mattei.**—Appearances of the Yearly Ripening of Ova in Woman. *Gaz. des Hôp.*, 22, 1859. (Brit. and For. Med.-Chir. Rev., Oct., 1859, 553.)
- Ronget.**—Researches on the Erectile Organs of Woman, and on the Muscular Tubo-ovarian Apparatus, in their Relations with Ovulation and Menstruation. *Brown-Séguard's Journ. de Phys.*, Oct., 1858. (Brit. and For. Med.-Chir. Rev., April, 1859, p. 550.)
- Simpson.**—Clinical Lectures on the Diseases of Women. *Med. Times and Gaz.*, 1859.
- Duncan.**—On the Development of the Female Pelvis. *Edin. Med. Jour.*, Oct. and Dec., 1859.
- Harvey.**—On the Fœtus in Utero as inoculating the Maternal with the peculiarities of the Paternal Organism, and on the transmission thereby of Secondary or Constitutional Syphilis from the Male to the Female Parent. *Glasg. Med. Jour.*, Jan., 1859, p. 385.
- Gooch.**—On some of the most important Diseases peculiar to Women; with other papers. Prefatory Essay by Robert Ferguson, M.D. *New Syd. Soc.*, 1859, pp. 235.
- Aran.**—Coup d'œil sur la thérapeutique générale des maladies de l'utérus et de ses annexes. [Therapeutics of Uterine Diseases, &c.] *Bull. de Thérap.*, April 30th and May 15th, 1858. (Canst., vol. iv, 407.)

MATTEI believes that for each ovary only one annual ripening occurs. This yearly ripening, for which the months of January, February, March, and April are most favorable, mostly ceases at the same epoch as the germination of plants and the rut of animals.

The body of the uterus is, according to RONGET, an erectile organ; the ovary has also an erectile bulb attached to it. He finds that in all vertebrata, especially all mammifera, a special muscular apparatus embraces the oviduct and ovary, and effects their mutual adaptation. The action of this muscular apparatus has the effect of retaining the blood within the erectile structures, and this con-

traction persists during the periods of ovulation. Menstruation is a consequence of this erection.

SIMPSON's lectures (twenty-six in number) on the diseases of women comprise dissertations on, and clinical illustrations of, the following subjects: vesico-vaginal fistula, cancer of the uterus and mammæ, dysmenorrhœa, closures and contractions of the vagina, caruncles of the urethra, neuroses &c. of the vulva, abscess of the vulva, surgical fever, phlegmasia dolens, coccyodynia, pelvic cellulitis, pelvic hæmatomata, pudendal varix, spurious pregnancy, and ovarian dropsy.

DUNCAN, in an inquiry having reference to the development of the female pelvis, states his belief that the ultimate form assumed by the adult pelvis is greatly determined by the mechanical forces to the action of which it has been previously subjected, and at a time when the bones have been themselves softer and the parts of the os innominatum only connected by cartilage. The nature of these mechanical forces the author then proceeds to explain. The normal development of the female pelvis having been thus elucidated, the same principles are illustrated by a reference to the conditions present in the pelves of Naegelé and Robert, and it is contended that the whole phenomena of the diseased pelves in question are explained by, and support the theory of, the natural development of the pelvis maintained by the author.

HARVEY, having in the first place shown, by an appeal to facts, that the peculiarities of a male animal which has once had fruitful intercourse with a female, may be, more or less clearly discernible in the progeny which that female may subsequently have by other males, reasons therefrom, that *morbid* qualities may be transmitted to the female in like manner. With reference to syphilis, cases are cited in which it would appear that the kind of transmission referred to did actually take place.

A reprint of GOOCH's celebrated work has been superintended by Ferguson, who, in a prefatory essay of forty-seven pages, introduces the various subjects treated of in the original treatise. Ferguson furnishes at the same time original and critical remarks on these several subjects, bringing the state of knowledge respecting them up to the present time, and incorporating therewith the results of his own experience.

TREATISES, ETC., ON SPECIAL DISEASES.

I. UTERUS.—DEVELOPMENT;—DISLOCATIONS.

- Kussmaul.**—Die einhörnige Gebärmutter ohne und mit verkümmertem nebenhorne. [On the Uterus Unicornis, &c.] Verh. des nat.-med. Vor. zu Heidelb., v, p. 139, 1858. (Sch., 5, 189.)
- Duigan.**—Case of Absence of the Vagina and Uterus. Dub. Hosp. Gaz., May, 1859, 131.
- Tuppert.**—Ein Fall von atresia uteri congenita mit nachfolgender Schwangerschaft. [A Case of Congenital Atresia Uteri; Pregnancy subsequently.] Scanz. Beiträge z. Geburtstk., iii. (Canst., vol. iv, 401.)
- Dietz.**—Verschluss der Gebärmutter. [Atresia Uteri.] Aertz. Intell. Bl., No. 28, 1858. (Canst., vol. iv, 401.)
- Aran.**—Etudes anatomiques et anatomico-pathologiques sur la statique de l'utérus. [Anatomical and Pathological Researches on the Statics of the Uterus.] Arch. Gén., Feb. and March, 1858. (Canst., vol. iv, 401.)
- Bonnet.**—Du soulèvement et de la cautérisation profonde du col-de-sac, rétro-utérin dans les retroversions de la matrice. [On Deep Cauterisation of the Retro-uterine Pouch in the Treatment of Retroversion of the Uterus.] Gaz. Méd. de Lyons, 2 and 3, 1858. (Canst., vol. iv, 401.)
- Schultze.**—Ueber Mutterkränze und Hysterophore, nebst einem Falle von 30 J. lang verhaltenen Mutterkränze. [On Pessaries, &c. Case in which a Pessary was retained for thirty years.] Aus der gynaekologisch. Klinik des Prof. Martin zu Berlin. Deutsche Klinik, 27, 1859. (Sch., 12, 316.)
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- Gaillard.**—Complete Prolapsus Uteri; Cauterization; Cure. *Gaz. de Par.*, 14, 1859. (Sch., 7, 30.)
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- Quackenbush.**—A Report on Inversion of the Uterus. *Ib.*, p. 162.
- McClintock.**—Extirpation of an Inverted Uterus by Écrasement. *Dub. Quar. Jour.*, Feb., 1859, p. 137.

KUSSMAUL finds that in the uterus unicornis, with or without a second imperfectly formed cornu—1. Menstruation appears to proceed as regularly as in the case of the symmetrical uterus. 2. That it does not produce sterility. 3. That the impregnated ovum may be developed in the imperfectly formed as well as in the perfectly formed cornu. 4. That pregnancy in an imperfectly formed cornu is usually associated with impervious condition of the passage leading to the other cornu; probably this apparent imperviousness is due to swelling of the tissues only. 5. That women with one ovary and a uterus unicornis may give birth to children of both sexes. 6. That it is not incompatible with the existence of repeated pregnancies, and does not predispose to abortion. 7. That abortion, viz., rupture of the ovum and its escape into the abdomen, always happens when the ovum is developed in the second, imperfectly formed cornu. In four cases of uterus unicornis, without a second cornu, the right side of the uterus was the one developed. Pregnancy in

the imperfectly formed cornu is frequently mistaken for tubal pregnancy.

TUPPERT records a case of congenital closure of the os uteri. The woman was twenty-nine years old, and had never menstruated. By means of a trocar, five ounces of fluid were evacuated from the uterus, but the operation was performed three times before the opening was made complete. Finally, she became pregnant.

According to ARAN's researches, the uterus is held in its place by the utero-sacral, the broad, and the round ligaments, and by the bladder and vagina; the junction of the body with the cervix of the uterus is a fixed point—"axe de suspension," about which the different movements of the organ occur. Of thirty-seven women, in seven tenths of those under twenty-nine years old, the uterus was anteflexed; of women above that age, only one fifth. Antelexion was more often present when pregnancy had not occurred.

BONNET proposes deep cauterization of the upper and back part of the vagina with Vienna paste and chloride of zinc, so as to obliterate the recto-uterine fossa, for the cure of retroflexions of the uterus. In three cases the excessive sufferings of the patients were removed, in a fourth the result was not so satisfactory.

A case is recorded by SCHULTZE, in which a pessary of wood was retained in the vagina for thirty years. Its extraction was very difficult. Some remarks follow on the best form of pessary to be used in cases of prolapsus.

MAYER gives statistics referring to 300 cases of prolapsus of the uterus and vagina which occurred in the practice of his father. In 203 cases Zwank's pessary was used, and in 179 with considerable benefit. It is necessary, in order that good results may be obtained from the use of this instrument, to carefully adjust its size to the width and direction of the pubic arch.

MAYER reports four cases, in which he amputated the cervix uteri for hypertrophy of this part of the uterus.

HUGUIER, in an elaborate memoir on the subject of prolapsus uteri, takes up a position widely antagonistic to previous ideas, contending that what is usually considered to be prolapsus is, in most cases, only hypertrophy and elongation of the cervical part of the uterus, of which there are two varieties, viz., the sub- and supra-vaginal. The author recommends amputation of the cervix uteri when the disease gives rise to serious symptoms, and we are certain that medical and other means are inefficient.

OLLIVIER recommends the employment of leeches to reduce the bulk of the organ, in preference to the employment of pessaries, for prolapsus uteri.

BONORDEN, with the same view, recommends ergot, galbanum, and inunction.

NOURSE relates a case cured by wearing a pad, bandage, and tannic-acid suppositories.

GAILLARD reports a case of cure by cauterization of the posterior wall of the vagina by the hot iron, at intervals of one to two months.

GREAVES and ROUTH record cases of cure of prolapsus uteri by plastic operations.

DILLON KELLY records a case of *retroversion* of the uterus recurring after two years. The tumour produced prolapsus of the posterior wall of the vagina. Reduction was easily effected.

VIRCHOW, in explaining the tendency to retroflexion, calls attention to certain anatomical facts; the extension of the recto-uterine pouch lower down than is usually supposed, and the adhesion of the cervix anteriorly to the neck of the bladder. Retroflexion very frequently follows childbirth. He does not find that relaxation of the uterus is specially present in such cases, on the contrary, often hardness and hypertrophy. The natural movements of the uterus about the bladder produce a certain amount of bending forwards of the fundus, easily increased by undue fulness of the rectum. Peritonitis is a frequent cause of flexions, and congenital shortness of the ligaments, over-distension of the bladder, long retention of its contents, have also an influence of the same character. ROKITANSKY agrees with Virchow on three points, viz., as to the internal os uteri being generally the seat of the flexure, as to retroflexions occurring more frequently after the puerperal state, and as to anteflexions being more frequently found in young women or those who have not had children. Rokitansky thinks, however, that at the seat of the flexion there is a real primary atrophy of the substance.

In the case of *chronic inversion* recorded by TEALE, the inversion was partial, and had existed for two years and a half. The recumbent position, chloroform, pressure by the air-pessary and hand, formed the elements of the treatment. In WEST's case the inversion was also not complete, the sound being admitted to the extent of half an inch. Efforts made by manipulation and the

air-pessary to reduce the tumour failed. Finally, an air-pessary was introduced into the os itself and kept *in situ* by an external apparatus, and inflation performed. Reduction was then effected in forty-eight hours.

BISSILL details particulars of three cases of recent inversion of the uterus, which occurred, certainly in two out of the three, independently of traction on the cord. In two cases reduction was effected, but not in the third. QUACKENBUSH refers to a case in which reduction was effected by White, of Buffalo, after fifteen years' duration; and to a more recent one of his own, also reduced. McCLINTOCK relates the case of a woman with inversion of the uterus of fourteen months' standing. The inversion was not complete. Several attempts to reduce the tumour failed; the operation of removal by the *écraseur* was practised, and the patient recovered.

II. ANOMALIES OF THE UTERINE SECRETIONS, TEXTURAL DISEASES OF THE UTERUS, NEUROSES, ETC.

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- Blair.**—Case of Vicarious Menstruation in a Female *æt.* 53. *Edin. Med. Jour.*, April, 1859, p. 882.
- Leute.**—A Case of Regular Menstruation during Pregnancy. *New York Journ. of Medicine*, March, 1859, p. 285.
- Taylor.**—Case of Amenorrhœa successfully treated by the application of Electricity. *Lancet*, 1859, ii, 235.
- Moses.**—Cases of Disordered Menstruation producing Phenomena simulating the Symptoms of Grave Diseases. *Amer. Jour. of Med. Science*, Oct., 1859, p. 355.
- Eagon.**—Epilepsy succeeding a Suppression of the Menstrual Discharge, &c. *Ib.*, 569.
- Trousseau.**—*Secalis Cornutum* and *Digitalis* in large doses in the treatment of Uterine Hæmorrhages. *L'Union*, 36, 1859. (Sch. 7, 29.)
- Beau.**—Passive Metrorrhagia quickly checked by the use of Powder of Rue and Savin. *Gaz. des Hôp.*, 141, 1858. (Sch., 5, 188.)
- Burns.**—Arsenic in Menorrhagia, Leucorrhœa, &c. *Amer. Jour. of Med. Science*, Oct., 1859, 393.
- Decaisne.**—Metrorrhagia during Menstruation, in consequence of Fungosities of the Uterus; Advantages of *Digitalis* after failure of Abrasion and Cauterization. *Gaz. des Hôp.*, 41, 1859. (Sch., 7, 29.)
- Becquerel.**—De la Dysmenorrhœe. [On Dysmenorrhœa.] *Gaz. des Hôp.*, 32, 1858. (Canst., vol. iv, 407.)

- Aran.**—Note sur l'emploi des lavements purgatifs dans le traitement du catarrhe utérin. [On Purgative Enemata in Chronic Uterine Catarrh.] Bull. de Thérap., March 15th, 1858. (Sch., 1, 60; and Canst., vol. iv, p. 407.)
- Becquerel.**—On Neuralgia of the Uterus. Gaz. des Hôp., 47, 1858.
- Coghill.**—The Pathology and Treatment of Irritable Uterus. Glasg. Med. Journ., July, 1859, 177.
- Namias and De Christoforis.**—On Tuberculosis of the Uterus and Appendages. Ann. Univ. Agost. et Sett. (Sch., 9, 326.)
- Langston Parker.**—On Primary and Secondary Syphilis of the Uterus. Brit. Med. Jour., 1859, 484.
- Kollock.**—A Case of Chancre of the Uterus. Charleston Med. Journ. and Rev., March, 1859. (Brit. and For. Med.-Chir. Rev., July, 1859, p. 273.)
- Langenbeck.**—Ueber die Extirpation der interstitiellen Uterusfibroide. [On the Extirpation of Interstitial Uterine Fibrous Tumours.] Deutsche Kl., 1, 1859. (Sch., 3, 309.)
- Elkington.**—Reports of Cases of Polypus of the Uterus, with Clinical Observations. Obstet. Trans., vol. i, p. 112.
- Hardy.**—Remarkable Case of Uterine Polypus. Dub. Hosp. Gaz., June, 1859, 163.
- Maier.**—Ueber Polypenbildung im Uterus. [On the Formation of Polypi in the Uterus.] Verhandl. d. Naturf. Ges. zu Freib., i, 209. (Sch., 4, 36.)
- Wagner.**—Fibrinous Polypus of Uterus. Schmidt's Jahrb., 1859, vol. ii, p. 37. (Sch., 4, 37.)
- Du crayon du charbon caustique et des principales applications dont il est susceptible, en particulier au traitement des affections de l'utérus. [The "Crayon du Charbon Caustique" in the treatment of Uterine Affections.] Bull. de Thérap., May 15th, 1858. (Canst., vol. iv, 407.)
- Scanzoni.**—Ein Todesfall, hervorgerufen durch das Einströmen von Kohlensäure in die Uterushöhle. [Death from the injection of Carbonic Acid into the Uterine Cavity.] Scanzoni's Beitr. z. Geburtsh., vol. iii, 1858. (Canst., vol. iv, 407.)
- Noeggerath.**—On Uterine Injections. New York Journ. of Med., May, 1859.
- Sack.**—Ueber das Sitzbad bei Frauenkrankheiten. [On the Hip-bath.] Monatsch. f. Geburtsh., xi. (Canst., vol. iv, 407.)
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- Brosius.**—Ueber Uterinal Congestion und Gemüthsleiden. [Uterine Congestion and Cerebral Affections.] Allg. Med. Centr. Ztg., April 3d, 1858. (Canst., vol. iv, 407.)
- Nonat.**—Hysterie et retention d'urine symptomatiques d'une metrite interne et d'un phlegmon peri-utérin. [Hysteria and Retention of Urine symptomatic of Metritis and Perimetritis.] Gaz. des Hôp., 31, 1858. (Canst., vol. iv, 407.)
- Storer.**—The Use and Abuse of Uterine Tents. Amer. Journ. of Med. Science, Jan., 1859.
- Becquerel.**—The Chronic Inflammations of the Uterus. Gaz. des Hôp., 87, 93, 1859. (Sch., 11, 182.)
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- Breslau.**—Scirrhus des uterus, fibröser Polyp, Pyometra. [Scirrhus and Fibrous Polypus of the Uterus.] *Mon. Sch. f. Geb.*, xiii, 435. (Sch., 11, 188.)
- Ein Fall von Ecrasement linéaire einer Carcinomatösen Vaginalportion. [Case in which Ecrasement of a Cancerous Cervix Uteri was performed.] *Scanzoni's Beiträge z. Geb.*, iii. (Canst., vol. iv, 408.)
- Fano.**—Successful Amputation of the Cervix Uteri for Carcinoma. *Gaz. des Hôp.*, 40, 1859. (Sch. 8, 191.)
- Betz.**—Zur Therapie des Clarke'schen Blumenkohlgewächses. [On the Treatment of Clarke's Cauliflower Excrescence of the Uterus.] *Memorab. a. d. Praxis V*, 5, 1859. (Sch., 8, 192.)
- Costilhes.**—Remarks on Chronic Metritis granulosa interna, and its treatment by Cauterization. *Gaz. Hebdom.*, vi, 2, 1859. (Sch., 10, 72.)
- Tilt.**—Chronic Uterine Disease; Hæmorrhage from the Bowels for the last twenty years; Internal Hæmorrhoids, &c. *Lancet*, 1859, ii, 559.
- Charnal.**—Considerations sur l'amputation du col de l'utérus par l'écraseur linéaire. [On Amputation of the Cervix Uteri by the Ecraseur.] *Monit. des Hôp.*, 13 et 14, 1858. (Canst., vol. iv, 407.)
- McRuer.**—On the Frequency, Importance, and Treatment of Ulcerations of the Os and Cervix Uteri. *Bangor, Maine, U.S.*, 1859. 8vo., pp. 46. (North Amer. Journ. of Med. Science, July, 1859, p. 215.)

In ROSICKI's case of menstrual deviation, an ulcer on the leg was the seat of monthly recurring pain and discharge of blood, which state of things continued during five years. The cure was finally effected by iron and quinine.

In BLAIR's case, hæmoptysis was observed on three successive occasions at the time the catamenial flow would otherwise have been observed.

In LEUTE's case, menstruation continued during seven months of pregnancy.

MOSES relates several cases in which "vicarious menstruation" occurred, from the umbilicus, the skin, ulcers, lungs and intestines, and stomach; also cases of amenorrhœa associated with epilepsy, tetanic symptoms, &c.

EAGON reports a case of epilepsy following on amenorrhœa, cured on supervention of dysentery and restoration of catamenia.

TAYLOR records a case of amenorrhœa, associated with mania. Electricity, by means of Pulvermacher's apparatus, was had recourse to, and with a beneficial result.

TROUSSEAU, in reference to the use of ergot and digitalis, states that, when given just after delivery, ergot produces an effect of a very quick and decisive character. After abortion and in hæmorrhages of carcinomatous origin, ergot acts very beneficially. Trousseau's

experience of the efficacy of digitalis is limited, but so far he is dissatisfied with the results obtained.

BEAU affirms that rue has a specific action on the uterus, as digitalis has on the heart. He combines rue with savin, in doses of rather less than a grain of each.

BURNS insists on the efficacy of arsenic in cases of hæmorrhagia and leucorrhœa.

In the treatment of uterine catarrh, ARAN recommends the injection of enemata containing aloes, gamboge, rhubarb, jalap, scammony, castor oil, croton oil, or purgative salts.

BECQUEREL considers an idiopathic neuralgia of the uterus to be not unfrequent. The disease is chronic, mostly intermittent, and difficult of removal in anæmic subjects.

COGHILL considers that the affection known as "irritable uterus" consists in a disordered state of the innervation of the organ. An increased vascularity, always present, brings with it morbid sensibility. This vaso-motor irritation has a further result in the excessive activity of the sensitive apparatus, accounting for the presence of leucorrhœa. This doctrine is founded on considerations suggested by Brown-Séquard's recently expressed views.

NAMIAS believes that tubercle occurs in the genital organs more frequently than is usually supposed, and that it does not often occur *primarily* in the genital organs. He has usually found tubercle in the uterus in the crude stage. When the Fallopian tubes are affected, the canal is not obliterated. In the ovaries the author has found tubercle in great quantity. DE CHRISTOFORIS contests the validity of some of the above generalisations.

On the subject of syphilis of the uterus, PARKER arrives at the conclusion that the uterus is capable of being primarily inoculated with syphilis, the sores being situated on the external surface of the neck, within the os or canal, or more deeply; that the uterus is liable to be attacked with the symptoms of secondary syphilis, which consist in discharges from the canal of the cervix, general or partial enlargement of the neck and lips of the uterus, with congestion, inflammation, and superficial ulceration; and that the affection often persists for years.

KOLLOCK records a case of chancre of the os uteri, proved by inoculation to be a genuine syphilitic sore.

In cases of fibroid tumour of the uterus, LANGENBECK advocates

the more frequent employment of operative procedures. In 12 cases (3 of which are by Langenbeck), operations have been performed, and in 7 of them with success. The operation is contra-indicated, if the tumours are situated in a part of the uterus covered by peritoneum. If the tumour be in the uterine cavity, the os is to be enlarged by sponge-tents, and the tumour removed. The several steps of the operation are then described.

ELKINGTON relates the particulars of six cases in which large uterine polypi were present, chiefly remarkable for the size of the tumours and the difficulties experienced in effecting their removal. In HARDY's case death followed the ligature of a large fibrous polypus.

In MAIER's case a substance was expelled from the uterus, which the author concludes was a coagulum of blood, the surface of which had become organized. WAGNER ('Schmidt's Jahrb.,' 1859, vol. ii, p. 36) considers it more likely to have been a fibrous polypus spontaneously detached, or possibly, an abortion.

ARAN recommends the use of a caustic pencil, composed of charcoal, tragacanth, and saltpetre, in induration and granular ulcers of the cervix uteri.

SCANZONI records a case of death, in less than two hours, from the use of the carbonic-acid uterine douche. NOEGGERATH relates four cases in which uterine injections were used; one of the patients died.

SACK states that his new hip-bath obviates the tendency to produce prolapsus, &c., connected with the use of the ordinary form of bath.

BROSIUS records two cases in which psychical disturbances were consequent on the presence of uterine congestion, and disappeared on the removal of the latter.

STORER details the purposes for which uterine tents are applicable.

BECQUEREL ascribes a powerful remedial effect to tannin, applied in the form of solution, in cases of inflammation of the uterus. After the local affection is relieved, the concomitant anæmia is to be treated.

DE MERIC removed a tumour as large as the fist from the cervix uteri of a patient, æt. 40. The tumour is described as "albuminous sarcoma." In FANO's case, the cervix uteri, enlarged by encephaloid disease, was amputated. In BRESLAU's case the *écraseur* was the instrument employed.

In cases where the radical operation for the cure of cauliflower

excrescence of the uterus is not admissible, BETZ recommends the frequent use of caustics.

COSTILHES recommends the use of nitrate of silver, applied in the solid state, for the removal of the fungus-like granulations present in chronic granular metritis.

TILT relates a case of chronic uterine disease and internal hæmorrhoids; a tumour of the uterus was also present. The patient had lost much blood, the source of which was not perfectly clear.

MCRUER believes that simple ulceration of the uterus is not "so formidable a malady as it is maintained to be by certain writers." The author advocates cleansing of the vaginal passage by emollient or slightly astringent fluids, attention to the general health, rest, &c., in order to remove the leucorrhœa. Caustic agents ought never to be made destructive, and the demonstrative use of the speculum is seldom justifiable or required in the diagnosis.

III. DISEASES OF THE OVARIES, ETC.

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Lumpe.—Ovariencyste bei einer Wöchnerin in Folge spontaner Ruptur und Entleerung durch den Dickdarm geheilt. [Spontaneous Rupture of Ovarian Cyst into the Large Intestine; Cure.] *Zeitsch. d. Gesell. d. Aertz. zu Wien.*, No. 22, 1858. (*Canst.*, vol. iv, 410.)

Clay.—Ovarian Cyst coexisting with Pregnancy, &c. *Obstet. Trans.*, vol. i, p. 226.

Preuss.—Radikalheilung eines Hydrovarium. [Radical Cure of Ovarian Dropsy.] *Deutsche Klinik*, 48, 1858. (*Sch.*, 3, 309.)

Hergott.—Ovariectomy. *Gaz. de Strasb.*, 2, 1859. (*Sch.* 6, 304.)

Simon.—Zusammenstellung von 61 in Deutschland theils ausgeführten, theils versuchten Ovariectomien. [Report of Sixty-one Cases of Ovariectomy.] *Scanzoni's Beiträge z. Geburtsh.*, iii, pp. 98—142.

Spencer Wells.—Five Cases of Ovarian Disease, in three of which Ovariectomy was performed successfully; with remarks on the means of diminishing the Mortality after this Operation. *Proc. of Roy. Med. and Chir. Soc. Lancet*, 1859, vol. i, p. 186.

Spencer Wells. Three Cases of Ovarian Disease. *Med. Times and Gaz.*, xl, 159.

— Three Cases of Ovariectomy. *Ib.*, 11, 31, 59.

— Unilocular Ovarian Cyst; Injection with Iodine; Successful result. *Ib.*, xxxix, 548.

- Spencer Wells.** Two Cases of Ovariectomy. *Med. Times and Gaz.*, xl, 605.
 ——— Eight Cases of Ovariectomy, with remarks on the means of diminishing the Mortality of this Operation. *Dub. Quar. Journ.*, Nov., 1859, 27.
- Black.**—On a Case of Ovarian Dropsy; Iodine injection; Cure. *Lancet*, 1859, ii, 262.
 ——— Ovarian Disease; Rupture of Cyst; Recovery; Subsequent reaccumulation; Death. *Med. Times and Gaz.*, xxxix, 342.
- Baker Brown.**—Five Cases of Ovariectomy; Three successful; with practical remarks. *Brit. Med. Journ.*, 1859, 422—440.
 ——— Case of Ovarian Disease; Operation; Death. *Lancet*, 1859, vol. i, p. 318.
 Death after Paracentesis for Ovarian Dropsy at St. George's Hospital. Reported in *Med. Times and Gaz.*, xl, 183.
- Holt.**—Polycystic Ovarian Tumour; Tapped fourteen times; Ovariectomy; Fatal result. *Lancet*, 1859, ii, 461.
- Borlase Childs.**—Ovariectomy. *Med. Circ.*, xiv, 111.
- Terry.**—Polycystic Ovarian Tumour; Ovariectomy; Death. *Med. Times and Gaz.*, xxxix, 599.
- Patterson.**—Case of Encysted Tumour of the Ovary. *Dub. Hosp. Gaz.*, July, 1859, 209.
 Four Cases of Ovariectomy. *Med. Times and Gaz.*, xxxix, 211.
- Miller.**—Two Cases of Encysted Tumour of the Ovary successfully treated by Excision, and an attempt to justify the Operation of Ovariectomy under certain circumstances. *North Amer. Journ. of Med. Science*, April, 1859, 318.
- Crouch.**—Childbirth after Ovariectomy. *Lancet*, 1879, i, p. 142.
- Graily Hewitt.**—Description of the Ovarian or Abdominal Sound, a new Instrument for the Examination of suspected Ovarian Cystic Tumours, &c. *Lancet*, 1859, i, 362, and *Obstet. Trans.*, vol. i, p. 55.
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- Tilt.**—On Peritonitis in relation to Uterine Pathology. *Lancet*, 1859, i, 367; ii, 133, 211, 257.
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- Nonat.**—Note sur l'hématocèle péri-utérine. [Peri-uterine Hæmatocele.] *Gaz. Hebdom.*, 23, 1858. (Canst., vol. iv, 410.)
- Gallard.**—Sur les hématocèles péri-utérines. [Peri-uterine Hæmatocèles.] *Bull. de la Soc. Anat. de Paris*, April, 1858. (Canst., vol. iv, 410.)
- Becquerel.**—De l'hématocèle péri-utérine. [Peri-uterine Hæmatocele.] *Gaz. des Hôp.*, 41, 1858. (Canst., vol. iv, 410.)
- Breslau.**—Recto-Vaginalabscess, Mastdarm Scheidenfistel, spontane Heilung. [Recto-vaginal Abscess; Recto-vaginal Fistula; Spontaneous cure.] *Monats. f. Geburtsk.*, xi, 5. (Canst., vol. iv, 410.)

EULENBERG records a case in which a tumour of supposed ovarian nature disappeared during pregnancy, and had not appeared again after a year from the time of delivery.

In LUMPE's case, paracentesis was about to be performed for the second time, when diarrhœa set in and lasted for nearly five weeks. The tumour disappeared. The matters passed resembled, after a time, those which had been evacuated from the cyst by the operation. CLAY records a case in which the ovarian cyst had apparently evacuated its contents through the bladder.

In PREUSS's case, paracentesis had been performed twice. Inflammation followed the last operation, and thirteen years after, the patient was perfectly well and the mother of four children.

The report by SIMON, of ovariectomy in Germany, contains 61 cases, 23 of which have been before published. Of the 61 patients a radical cure was obtained in 12 cases ($19\frac{4}{5}$ per cent.) In 5 ($8\frac{2}{5}$ per cent.), the operation was useless or of transitory benefit; and 44 ($77\frac{8}{11}$ per cent.) died from its immediate effect. The operation was complete in 44 cases; of these 44, 32 died ($72\frac{8}{11}$ per cent.), 1 died subsequently of cancer, and 11 (25 per cent.) were radically cured. In 15 cases the operation was attempted, but abandoned or incomplete; of these, in 1, radical cure; in 3, no advantage; in 11, death. In 2 cases, diagnosis at fault; 1 died.

HERGOTT records a case of ovariectomy in a woman, æt. 50; death took place twenty-three hours after.

SPENCER WELLS had, up to the end of the year 1859, performed the operation of ovariectomy in hospital practice ten times, with a result of seven recoveries and three deaths. These cases are reported at length. The mortality after this operation is to be diminished, he remarks—(1) by the selection of proper cases; (2) by determining the stage of the disease proper for operation; (3) by careful precautions against unnecessary sources of danger; (4) by the use of anæsthetics; (5) by various precautions in the operation itself; (6) by careful after-treatment. The propriety of the operation he justifies by the results of experience and by comparison of the results of this and other surgical operations, as lithotomy. Injections are suitable only for cases of unilocular disease, or cases in which the secondary cysts are few and small. Spencer Wells records also three cases of ovarian disease, in two of which iodine was injected and a cure followed. In a third, death took place after the operation of paracentesis from cyst-inflammation.

In BLACK's case of iodine injection, the cyst was unilocular. The cure was complete.

BROWN records five cases in which ovariectomy was performed, and in three of which a successful result was obtained. In a case of ovariectomy by CHILDS, the result was unfavorable; a part of the pedicle slipped from the clamp, and hæmorrhage into the abdomen was fatal twenty-two hours after the operation. In HOLT's case of ovariectomy, the patient died the following day. In TERRY's case death took place about twenty-four hours after the operation.

MILLER relates the details of two successful cases of ovariectomy. He discusses the several objections which have been made to the operation, and expresses himself as very favorably disposed towards it. He attributes very great importance to the administration of continued doses of opium, in order to keep the bowels quiet for some days after the operation.

CROUCH states that the results of nine cases of ovariectomy prove that each ovary is capable of producing children of both sexes.

GRAILY HEWITT describes a new instrument for the diagnosis of suspected ovarian cysts. It resembles the uterine sound, but is much longer, and can be used to probe the interior of the cavity, the contents of which are prevented from escaping during the examination by a simple contrivance.

PUECH analyses three observations of cases in which hæmorrhage occurred, and is of opinion that the cases in question prove the existence of tubal hæmorrhage of an independent character.

GAUCHET relates three cases in which he believes peri-uterine hæmatocele to have been present.

Pelvi-peritonitis is, according to TILT, of very frequent occurrence, associated in some cases with hæmorrhagia, in others with ovaritis, originating in ovulation, &c. Pain is usually experienced in the iliac regions, and a tumefaction surrounding the neck of the uterus may be felt per vaginam. Repeated attacks cause adhesion of the adjoining surfaces of the organs affected, and leave bands of adhesion liable to cause serious accidents, such as incarceration of the intestines, flexions of the uterus, &c. Sterility is frequently caused by previous pelvi-peritonitis. Leeches, calomel, and opium, are recommended.

TROUSSEAU considers that the retro-uterine hæmatocele is constituted by the pouring out of blood in the space between the rectum

and the uterus. The neck of the uterus is thereby pushed upwards and forwards. The first symptom is pain, and there is great paleness of the skin, which symptoms occurring in a young woman at the menstrual period, the usual discharge being absent or less than usual, indicate that uterine hæmatocele is present. In the treatment of menorrhagia, which is believed to be often followed by hæmatocele of this character, the author recommends quinine in large doses.

VOISIN has collected forty-two cases of retro-uterine hæmatocele, ten of these observed by himself. The hæmorrhage is, he believes, always intra-peritoneal. The most favorable time for its occurrence is at the time of menstruation, especially in conjunction with traumatic influences, such as blows, falls, &c. The diagnostic points are—the commencement of the disease at the time of menstruation, the profuseness of the flow, the sudden occurrence of attacks like those of peritonitis, the sudden formation of the retro-uterine tumour, the quickly following anæmia, &c.

IV. DISEASES OF THE VAGINA AND EXTERNAL GENERATIVE ORGANS.

Simon.—Ueber die Heilung der Blasen-Scheiden- und Blasen-Gebärmutterfisteln. [On the Treatment of Vesico-vaginal and Vesico-uterine Fistulæ.] Monatsch. f. Geburtsh., July, 1858.

Monnu.—On the Treatment of Vesico-vaginal Fistula. Arch. f. Physiol. Heilk., 1858.

Tanner.—On a Case of Vesico-vaginal Fistula. Lancet, 1859, vol. i, p. 260.

Marshall.—Vesico-vaginal Fistula cured by Bozeman's Operation. Ib., p. 289.

MacGhie.—Cases of Operation for Vesico-vaginal Fistula. Glasg. Med. Journ., July, 1859, p. 191, and Oct., p. 318.

Fenner.—Vesico-vaginal Fistula. Am. Jour. of Med. Science, Oct., 1859, p. 353.

Baker Brown.—Four Cases of Vesico-vaginal Fistula. Brit. Med. Journ., 1859, 267.

——— Case of Vesico-vaginal Fistula of seven years' duration; Twenty-four operations; Ultimate cure. Lancet, 1859, vol. i, p. 143.

Coghill.—Case of Successful Operation for Vesico-vaginal Fistula. Lancet, 1859, i, p. 455.

Pollock.—Two Operations for Vesico-vaginal Fistula; Death. At St. George's Hospital. Med. Times and Gaz., xxxix, 315.

Watson.—On Vesico-vaginal Fistula. Lancet, 1859, vol. i, p. 233.

- Baker Brown.**—On Vesico-vaginal Fistula, illustrating a new Mode of Operation. *Lancet*, 1859, ii, 581.
- Batley.**—A new Principle of Treatment and Apparatus for Vesico-vaginal Fistula. *Obstet. Trans.*, vol. i, p. 275.
- Thorp.**—Case of Vesico-vaginal Fistula, in which a second Operation was successfully performed. *Dub. Quart. Journ. of Med. Science*, Feb., 1859, 87.
- Birkbeck Nevins.**—Vesico-vaginal Fistula of fifteen years' duration; Successful employment of a Pessary. *Brit. Med. Journ.*, 1859, 770.
- Breslau.**—Grosse Blasenscheidenfistel, &c. [Case of Extensive Vesico-vaginal Fistula.] *Mon.-Sch. f. Geb.*, xiii, 435. (Sch., 11, 187.)
- Hergott.**—Deux observations de fistules vesico-vaginales guéries, l'une à la suite de l'opération et de la cautérisation, l'autre spontanément. [Two Cases of Vesico-vaginal Fistula; one cured by Operation, and one by Cauterization.] *Gaz. Méd. de Strasbourg*, April 23d, 1858. (Canst., vol. iv, p. 412.)
- Kuchler.**—Vortrag über die Wirkung de Doppelnaht zur Sicherung der Herstellung eines soliden Dammes und Scheideneinganges bei der Episioraphie. [On the Operation for Ruptured Perineum.] *Monatsch. f. Geb.*, xi. (Canst., vol. iv, p. 413.)
- Breslau.**—Neue Methode der Episioraphie. [On the Operation for Ruptured Perineum.] *Monatsch. f. Geb.*, xi. (Canst., vol. iv, p. 413.)
- Bagot.**—Laceration of the Perineum. *Dub. Med. Press*, 1859, 101.
- Breslau.**—Heilung einer vollkommenen Incontinenz des Urins durch abtragung beider hypertrophischen Nymphen. [Hypertrophy of the Nymphæ causing Incontinence of Urine; Cure by removal.] *Beiträge zur Geburtsk. und Gynækol.*, 1858, No. 3, p. 89.
- Paravicini.**—Atheromatous Cyst of one of the Labia Majora, removed by means of the Ecraseur. *Ann. Univ. Agost. e Sett.*, 1858. (Sch. 9, 322.)
- Thomas.**—The Hymen; an Essay delivered before the New York Medical Union. *New York Journ.*, March, 1859, 196.
- Caillat.**—Cas remarquable d'imperforation de l'hymen. [Imperforate Hymen.] *Gaz. des Hôp.*, 17, 1858. (Canst., vol. iv, p. 412.)
- Paget.**—Imperforate Hymen; Fatal result after its Division. *Brit. Med. Journ.*, 1859, 579.
- Sydney Henson.**—Retention of the Menses from Imperforate Hymen. *Lancet*, 1859, i, 402.
- Anselmier.**—On Narrowing of the Vagina after the use of the Actual Cautery in the treatment of Uterine Affections. *Gaz. des Hôp.*, 70, 1859. (Sch., 9, 192.)
- Rigby.**—On Pruritus Pudendi Muliebris. *Med. Times and Gaz.*, xxxix, 4; and xl, 500.
- Paupert.**—On the Employment of Glycerine in Cases of Vulvar Hyperæsthesia. *Ann. de Thérap.*, 1859, 125.
- Ladreil de la Charriere.**—Sur les cystes qui se développent sur les parois du vagin. [Cysts of the Walls of the Vagina.] *Arch. Gén.*, May, 1858. (Canst., vol. iv, p. 412.)

SIMON operated on nineteen cases of vesico-vaginal fistula, and of these, ten were healed completely; five incompletely, requiring subsequent caustic treatment; only one sent back uncured. Two women

died after the operation, and a third after a preliminary operation. The suture used was of silk.

MONNU proposes to treat obstinate cases of vesico-vaginal fistula by obliterating the vagina altogether, and allowing the menstrual discharge to pass through the bladder.

TANNER records a case of cure by Bozeman's operation. The opening was high up and of long standing. In MARSHALL's case also Bozeman's operation was successful. In MACGHIE's cases, operated upon after the method of Bozeman and Simon, of nine hospital cases, seven were cured by an operation, and two partially. Of three private cases all were cured. FENNER cured two out of four cases by the same operation. BAKER BROWN records four cases of Bozeman's operation performed by him successfully. The operation successful in a case of seven years' standing was also Bozeman's. COGHILL rejects the button of Bozeman and the circular ring of Simpson; he employs iron-wire sutures, and simplifies the process of paring the margins of the fistula by employing only one convex knife for the purpose, and bent-steel spatulæ. The success of the operation depends, he believes, on the iron-wire suture. In WATSON's case, a leaden plate was used, perforated as in Bozeman's button, but having little leaden tubes soldered to the holes, whereby the use of shot is avoided. BAKER BROWN uses a separate bar-clamp to each suture, the suture being a metallic one. In seven cases thus treated, six were cured. BATTEY proposes a new modification of Bozeman's operation, by which more perfect coaptation and greater readiness in the performance of the operation are secured. In THORP's case, the quilled suture was the means used to effect the cure of the fistula.

NEVINS succeeded in preventing the escape of urine, in a case of vesico-vaginal fistula, by the employment of a gutta-percha pessary.

BRESLAU believes it to be very difficult to obliterate the vagina, as a curative measure, in cases of large vesico-vaginal fistula. A case is related in which the attempt was made.

BAGOT relates a case of laceration of the perineum, produced during a first intercourse, in a young lady, æt. 18. The perineum was torn as by a sharp instrument, the hymen torn, and the vagina completely laid open.

BRESLAU relates a case in which excessive hypertrophy of the nymphæ was associated with incontinence of urine, the urethra

admitting the little finger. The nymphæ were removed, and a cure followed.

THOMAS arranges the disease of the hymen as follows: 1. Fibroid or cartilaginous degeneration. 2. Ossification. 3. Aphthous ulceration. 4. Inflammatory ulceration. 5. Irritability, accompanied by spasm. 6. An imperforate condition. These heads are severally considered and illustrated by cases.

In PAGET's case death from acute peritonitis took place five days after the operation for imperforate hymen. The contained fluid of the uterus and Fallopian tubes (the latter enormously distended) had escaped into the peritoneal cavity. HENSON relates a case of retention from imperforate hymen, of the ordinary kind.

ANSELMIER calls attention to the fact that the use of the actual cautery as above may produce a very serious amount of narrowing of the vagina. In one case incisions of the vagina were necessary, in order that delivery might be effected, and in others very serious inconvenience resulted.

RIGBY relates a case of pruritus pudendi cured by removal of constipation and gastro-biliary derangement; and subsequently, another, in which the pruritus was removed by assiduous constitutional treatment.

PAUPERT calls attention to the benefit resulting from the application of glycerine in cases of hyperæsthesia of the vulva, with ecthymatous eruptions, and also in cases of pruritus of the same parts.

L. DE LA CHARRIERE reports five cases of cysts situated in or beneath the walls of the vagina.

V. DISEASES OF THE BREAST.

Hess.—Extirpation d. beider Bruste. [Removal of both Breasts.] Allg. Wien. Med. Ztg., 49, 1858. (Sch., 3, 308.)

Fano.—On the Treatment of Lacteal Fistulæ by Compression of the Breast. L'Union, 14, 1859. (Sch., 7, 32.)

Anselmier.—On the Treatment of Sore Nipples during Lactation. L'Union Méd., 1, 1859.

Routh.—Defective Lactation, and its Remedy. Med. Times and Gaz., xxxix, 467, 494, 520.

Stewart.—Anti-lactescent Properties of Compressed Sponge. *New York Journ. of Med. Science*, Nov., 1859, 347.

Collis.—Cystic Mammary Tumour. *Dub. Hosp. Gaz.*, 1859, p. 56.

Barton.—Two Specimens of Mammary Tumour. *Ib.*, p. 22.

Skey.—On Tumours of the Mammary Gland in Females, and the Degeneration into Malignant or Benign Growths. (A Clinical Lecture.) *Med. Circ.*, xv, 26.

Hess records the case of a patient, *æt.* 21, in which both breasts, one weighing 10 lbs., the other 5 lbs., were removed. Menstruation, previously absent, soon after commenced, and later, pregnancy supervened.

Fano successfully treated a case of lacteal fistula by carefully applied compression of the breast by means of strips of plaister.

For the treatment of sore nipples during lactation, Anselmier recommends the employment of nipple-shields, which must not be too thick or resistant. Collodion to be used locally. When deep fissures are present finely powdered benzoin is employed with advantage.

Routh describes three varieties of defective lactation: 1. That due to hyperæmia. 2. That due to anæmia. And 3. That due to functional paralysis or inertia of the breast, usually present in masculine women or those married late in life. The remedies for the latter condition are local, hygienic, dietetic, and medicinal. Treatment includes suction, titillation of the nipple, &c. The separation of man and wife during the suckling period is, he considers, prejudicial to lactation. As lactagogues, the leaves and stalks of ricinus and fennel are spoken favorably of.

Stewart relates a case in which the breasts were covered by compressed sponge, in order to prevent the formation of milk. The treatment was completely successful.

VI. DISEASES OF PREGNANCY AND CHILD-BED.

Brucke.—Ueber die Glycosurie der Wöchnerinnen. [On the Glycosuria of Lying-in Women.] *Wien. Med. Wochensch.*, 19 and 20, 1858. (*Canst.*, vol. iv, p. 416.)

——— Die Driburger Kur bei Schwangeren. [On the Efficacy of the Driburg Baths during Pregnancy.] *Monatsch. f. Geburts.*, vol. xi. (*Canst.*, vol. iv, p. 416.)

- Maydell.**—Fall von habituellem Absterben der Frucht. [Repeated Death of the Fœtus.] *Med. Ztg. Russl.*, 24, 1859. (Sch., 11, 322.)
- Braun.**—Zur Pathogenie der Hydrorrhœa gravidarum. [On the Pathogenesis of Hydrorrhœa gravidarum.] *Zeitsch. d. Ges. d. Aertz. z. Wien*, 17, 1858. (Canst., vol. iv, p. 416.)
- Murray.**—Exomphalos, in which the Gravid Uterus formed the Hernial Mass. *Obstet. Trans.*, vol. i, p. 77.
- Cooper Willis.**—On After-pains. *Lancet*, 1859, vol. i, p. 130.
- Kunkler.**—A Case of Uterine Hæmorrhage three weeks after Delivery. *North Amer. Med.-Chir. Rev.*, Jan., 1859, p. 89.
- McClintock.**—On Scarlatina after Parturition. *Dub. Hosp. Gaz.*, 1859, p. 55.
- Draper Mackinder.**—Sudden Death from Occlusion of the Pulmonary Arteries seventeen days after Parturition. *Obstet. Trans.*, vol. i, p. 213.
- Charcot and Ball.**—Sudden Death during the Puerperal State from Embolic Plugging of the Pulmonary Artery. *Gaz. Hebdom.*, v, 44, 46, 49, 1858. (Sch., 11, 187.)
- Baart.**—Fall von Phlebothrombosis bei einer Neuentbinden. [Case of Phlebothrombosis in a Woman recently Delivered.] *Nederl. Tijdschr.*, pp. 167—174. (Sch., 9, 330.)
- Bertin.**—On the Treatment of Syphilis in Pregnant Women. *Gaz. Hebdom.*, Dec. 10, 1858. (*North Amer. Med.-Chir. Rev.*, March, 1859.)
- Larcher.**—On Normal Hypertrophy of the Heart during Pregnancy, and its Pathogenetic Influence. *Arch. Gén.*, March, 1859. (Sch., 10, 74.)
- Breslau.**—Intoxikation zweier Schwängern mit Leuchtgas. Tod, und vorzeitige Geburt eines Kindes. [Toxic Effects of Coal Gas on two Pregnant Women.] *Mon.-Sch. f. Geb.*, xiii, 435. (Sch., 11, 189.)
- Freund.**—Intoxikation mit Kohlenoxydgas. [Toxic Effects of Carbonic Oxide Gas during Pregnancy.] *Monatsch. f. Geb.*, xiv, 31. (Sch. 11, 189.)
- Martin.**—De l'incontinence d'urine après les couches, et de sa rétention. [On Incontinence and Retention of Urine after Labour.] *Abeille Méd.*, 5, 1858. (Canst., vol. iv, 417.)
- Spiegelberg.**—Zur geburtshülflichen Casuistik. [A Case of Chorea during Pregnancy.] *Monatsch. f. Geburtsk.*, xi. (Canst., vol. iv, p. 417.)
- Litzmann.**—Neue Beiträge zur Lehre von der Urämie der Schwangeren Gebärenden und Wöchnerinnen. [On Uræmia during Pregnancy, Delivery, and Childbed.] *Monatsch. f. Geb.*, xi. (Canst., vol. iv, 417.)
- Paget (à la Roche).**—Cas remarquable d'éclampsie. [Case of Eclampsia.] *Gaz. des Hôp.*, 14, 1858. (Canst., vol. iv, p. 417.)
- Broadbent.**—Abortion, with Albuminuria and Convulsions, in Six successive Pregnancies. *Obst. Trans.*, vol. i, p. 108.
- Pesch.**—Fall von Eclampsia puerperalis mit glücklichem Ausgange. [Eclampsia Puerperalis; Recovery.] *Monats. für Geburtsk.*, xii. (Sch., 3, 312; and Canst., vol. iv, p. 417.)
- Bignami.**—Eclampsia on the Thirteenth day after Delivery, with consecutive Pleuro-pneumonia. *Ann. Univ. Agosto, Sett.*, 1858. (Sch., 10, 81.)
- Barozzi.**—Eclampsia Puerperalis. *Gaz. Méd. d'Orient.*, May, 1858. (Sch., 3, 312.)
- Boursier.**—Eclampsie au huitième mois de la grossesse, guérison; accouchement de deux enfants réunis sur les cotés. [Eclampsia at the Eighth Month of Pregnancy; Recovery, &c.] *L'Union Méd.*, June, 1858. (Canst., vol. iv, p. 417.)
- Ramsbotham.**—Puerperal Convulsions. *Med. Times and Gaz.*, xxxix, 233.

- Overton.**—Puerperal Convulsions successfully treated by Croton-oil Suppositories. *Ib.*, 430.
- Dupeau.**—Chloroform-inhalation in the Treatment of Puerperal Convulsions. *Gaz. Hebdom.*, vi, 9, 1859. (Sch., 10, 81.)
- Keen.**—Case of Convulsions during Pregnancy. *Lancet*, 1859, vol. i, p. 218.
- Kidd.**—On the Diagnosis of Hysterical Puerperal Convulsions. *Dub. Hosp. Gaz.*, 1859, p. 86.
- Marce.**—Traité de la folie de femmes enceintes, des nouvelles accouchées et des nourrices, &c. [On Puerperal Mania, &c.] 8vo, *Paris*, 1858, p. 294. (Schm., 11, 263.)
- Barker.**—Case of severe Vomiting and Dysenteric Diarrhœa in the early months of Pregnancy; Abortion; Recovery. *Brit. Med. Journ.*, 1859, 600.
- Girdwood.**—On Diarrhœa and Dysentery coetaneous with Conception. *Lancet*, 1859, ii, 234.
- Tyler Smith.**—Case of extreme Emaciation, the result of obstinate Vomiting in Pregnancy. *Obstet. Trans.*, vol. i, p. 335.
- Hergott.**—Hartnäckiges Erbrechen während der Schwangerschaft, Kunstlicher Abortus und Heilung. [Obstinate Vomiting during Pregnancy; Artificial Abortion; Cure.] *Gaz. de Strasb.*, 8, 1859. (Sch., 12, 317.)
- Dezon** (de Toulon).—Vomissement des femmes grosses guéri par des applications froides. [Vomiting during Pregnancy cured by Cold Applications.] *Journ. des Connais. Méd.*, 17, 1858. (Canst., vol. iv, p. 417.)
- Ulrich.**—Lethaler Fall von vomitus gravidarum. [Fatal Case of Vomiting during Pregnancy.] *Verh. d. Ges. f. Geb. zu Berlin. Monatsch. f. Geb.*, xi. (Canst., vol. iv, 417.)
- Agostino Maraglio.**—Sur la causa della morte di una puerpera primipera. [On the Cause of the Death of a Primipera during the Puerperal State.] *Gaz. Méd. Ital. Lomb.*, 38, 1858. (Canst., vol. iv, 417.)
- Discussion sur la fièvre puerpérale. [Discussion on the Subject of Puerperal Fever.] *Bull. de l'Ac. imp. de Méd.*, t. xxiii, Nos. 11—20, 1858. (Canst., vol. iv, p. 417.)
- Auber.**—De la fièvre puerpérale, devant l'Académie de Médecine Par., 1858. [On the Puerperal Fever discussion at the Acad. of Medicine.] (Canst., vol. iv, 417.)
- Behier.**—Lettres sur la maladie dite fièvre puerpérale, à M. Trousseau. [On the Disease known as Puerperal Fever.] *Un. Méd.*, Nos. 31—64, 1858. (Canst., iv, 417.)
- Pidoux.**—Notes sur la fièvre puerpérale, à l'occasion des débats académiques. [Puerperal Fever, &c.] *Un. Méd.*, Nos. 48—81, 1858. (Canst., vol. iv, 417.)
- Mattei.**—Du rôle que joue la précipitation de la lymphe plastique dans la production des fièvres puerpérales, des résorptions purulentes et des résorptions putrides. [Exuded Plastic Lymph as a cause of the Production of Puerperal Fever, &c.] *Mon. des Hôp.*, Nos. 36—44, 1858. (Canst., vol. iv, 417.)
- Chavanne.**—La fièvre puerpérale à l'Académie de Médecine. *Gaz. Méd. de Lyon*, Nos. 7 and 8, 1858. (Canst., vol. iv, 417.)
- Legroux.**—Considérations sur la nature et le traitement de la fièvre puerpérale. [On the Nature and Treatment of Puerperal Fever.] *Bull. gén. de Thérap.*, July, 1858. (Canst., vol. iv, 417.)
- Dor.**—Hôpital d'accouchement de Prague; Epidémie de fièvre puerpérale. [Puerperal Fever at the Hôpital d'Accouchement at Prague.] *Gaz. Hebdom.*, No. 9, 1858. (Canst., vol. iv, 417.)
- Pecholier.**—Observation de fièvre puerpérale. [Case of Puerperal Fever.] *Rev. Méd.*, March, 1858. (Canst., vol. iv, 417.)

- Villeneuve.**—Sur la question des maternités, et de leur suppression regrettable. [On Lying-in Hospitals.] Rev. Méd., April, 1858. (Canst., vol. iv, 417.)
- Surmay.**—Note sur la fièvre puerpérale. [On Puerperal Fever.] Union Méd., No. 99, 1858. (Canst., vol. iv, 417.)
- Schnepp.**—De la fièvre puerpérale dans l'école Allemande. [Puerperal Fever in the German School.] Un. Méd., No. 56, 1858. (Canst., vol. iv, 417.)
- Prosper de Pietra Santa.**—De la fièvre purpérale dans l'école de Florence. [Puerperal Fever in the School of Florence.] Un. Méd., No. 74, 1858. (Canst., vol. iv, 417.)
- Mascari.**—Cenni sulla febbre puerperale. [On Puerperal Fever.] Gaz. Méd. Ital. Stati-Sardi, Nos. 35—42, 1858. (Canst., vol. iv, 417.)
- Lehmann.**—Rapports de la Commission d'obstétrique, communiqués au cercle médical d'Amsterdam. Traduit par Dieudonné. [Reports of the "Commission d'obstétrique" at Amsterdam.] Journ. de Brux., Sept. and Nov., 1858. (Canst., vol. iv, 417.)
- Joly.**—Considérations sur la suppression des lochées dans les maladies puerpérales. Moyen simple et sans danger pour rétablir cet écoulement. [The Suppression of the Lochia in Puerperal Diseases; Method of re-establishing the same.] Bull. de Thérap., Oct., 1858. (Canst., vol. iv, 417.)
- Bonfils.**—De l'emploi de l'huile essentielle de térébinthine et de l'opium à hautes doses dans le traitement des accidents puerpéraux graves. [Oil of Turpentine and Opium in the Treatment of severe Puerperal Affections.] Bull. de Thérap., May, 1858. (Canst., vol. iv, 417.)
- Thibaut.**—Fièvre puerpérale grave, traitée par la méthode du docteur Vandenzaude d'Anvers. [Severe Puerperal Fever treated after the method of Vandenzaude.] Annal. de la Soc. de Méd. d'Anvers, Oct., 1858. (Canst., vol. iv, 417.)
- Discussion sur les maladies regnantes. [Discussion on prevailing Diseases.] Bull. de la Soc. de Méd. de Gand., April, 1858. (Canst., vol. iv, 417.)
- Schulten** (zu Ganodernheim).—Ergebnisse einiger Blutuntersuchungen in Puerperalkrankheiten. [The Blood in Puerperal Diseases.] Virchow's Arch., xiv 5 and 6. (Canst., vol. iv, 417.)
- Virchow.**—Ueber die in der Charité vorgekommenen Puerperalkrankungen. [Puerperal Diseases in the Charité at Berlin.] Monatsch. f. Geb., xi.
- Martin.**—On Inflammation of the Fallopian Tubes as a Cause of Puerperal Peritonitis. Monatsch. f. Geburtsk., 1859, xiii, 11.
- Cooke.**—Persistence of Pregnancy during and after Uterine Phlebitis. Med. Times and Gaz., xl, 575.
- Dove.**—The Essential Oils in the Treatment of Puerperal Fever. Brit. Med. Journ., 287.

BRUCKE states, that an increase in the amount of sugar excreted by the urine of lying-in women is not a pathological phenomenon.

BRUCKE found that a woman was delivered of well-formed children after the use of the baths at Driburg, whereas pregnancies during which the baths were not used terminated in the birth of microcephalous children.

MAYDELL relates the case of a chlorotic woman who had been repeatedly delivered of dead children. She was treated in the next

pregnancy by repeated venesections, and the result was favorable.

BRAUN was led to believe, from examination of a case of "hydorrhœa gravidarum," that the exudation in question proceeded from a delicate membrane situated between the placenta and uterus.

MURRAY records a case of exomphalos, two thirds of the bulk of the gravid uterus at eight months passing through the umbilical ring. It was reduced, and the patient did well.

McCLINTOCK found, that of twenty-eight patients treated in the Rotunda Hospital for scarlet fever after parturition, twenty-five per cent. died. He attaches great importance to the early administration of stimulants in the treatment of such cases.

MACKINDER relates a case in which a large, branching, fibrinous plug was found completely stopping up the right pulmonary artery, and a less considerable one in the left, in a patient who had died suddenly seventeen days after parturition.

In CHARCOT and BALL's case, the patient died a few days after labour. There had been phlegmasia dolens, and the pulmonary arteries contained clots, some recent, others older. The clots in the pulmonary artery had, it was inferred, been transported from the common iliac vein.

In BAART DE LA FAILLE's case, phlegmasia alba dolens occurred twelve days after labour, and death five weeks later. The uterine and pampiniform venus plexuses contained coagulated blood, the common iliac veins, the hypogastric and crural, as far as examined, contained clotted blood. So also, the inferior vena cava for a short distance contained a coagulum. No pus was found, and the uterus is described as healthy.

BERTIN records facts and observations to show that the anti-syphilitic treatment of the mother by mercury is not injurious to the foetus, and should not, therefore, be postponed on account of the presence of pregnancy.

LARCHER examined the heart in 130 cases of death soon after labour, and in all found the organ hypertrophied. The hypertrophy was limited to the left ventricle, which was from one quarter to two thirds thicker than usual, and was also firmer and more red. If several pregnancies follow quickly one on the other, the hypertrophy may, it is contended, become permanent. The disturbances of the circulation, &c., to which women with large families are so subject, are set down to this cause.

BRESLAU states, that two women who slept in a room into which coal gas was escaping were found in the morning in a state of considerable danger, and one of the women aborted the next day. In FREUND's case, carbonic oxide gas, inhaled for some time, is set down as the cause of the death of a fœtus of seven months, and its subsequent expulsion.

In BROADBENT's case, the association of albuminuria and *convulsions* was noticed in six successive pregnancies.

SPIEGELBERG records a case of chorea during the latter half of pregnancy; the woman was anæmic. After delivery the chorea nearly disappeared, but not completely until after the lapse of two months.

LITZMANN records a case in which marked uræmia was present during the last week of pregnancy, but the quantity of albumen in the urine was inconsiderable. The intensity of the uræmia is, he believes, in relation to the degree of the interference with the excretion of urea.

In PESCH's case of eclampsia, (primipara), the convulsions began with labour, and continued after delivery by the forceps. The urine was highly albuminous. Small doses of opium were given for two hours after delivery, and afterwards chloroform internally. The patient recovered. BIGNAMI's patient was a primipara, æt. 17. Atropine was administered, and to it the cure which followed is ascribed. In BAROZZI's case, convulsions set in during labour, accompanied by perfect loss of consciousness and right hemiplegia. The convulsions continued for seventy hours from their commencement, and consciousness was perfect for the first time six days afterwards; convalescence after five months' illness. The urine was not examined. Œdema of the legs was present. BOURSIER's patient became affected at the eighth month with convulsions, preceded by œdema of legs and hands. She was largely bled, and delivered of twins united together. In RAMSBOTHAM's case the convulsions occurred at the seventh month of pregnancy, preceded by drowsiness, puffy hands and face, &c. They were frequently repeated and there was insensibility and stertorous breathing. The patient was freely bled, and later the membranes ruptured, and labour completed. No albumen was found in the urine. Recovery perfect. In OVERTON's case, croton-oil suppositories were of service. Anasarca was present. DUPEAU found the treatment by inhalation of chloroform effectual. KEEN's patient, six months pregnant, was seized with convulsions after eating a

heartily meal, and died in five hours. The os was undilated throughout.

KIDD relates two cases observed in the Coombe Lying-in Hospital, in which the diagnosis of hysterical from epileptiform convulsions was difficult. The only reliable diagnostic point in these cases was the preservation of consciousness by the hysterical patients throughout.

MARCÉ'S work on puerperal mania is a complete analysis of psychical derangements in women during the periods of pregnancy, parturition, and lactation. The pathology and treatment of these affections and the medico-legal bearings of the subject are fully discussed. Details of seventy-nine cases observed are incorporated in the text.

BARKER, in relation to a question raised in the course of discussion respecting the late "Smethurst" trial, relates the case of a patient, *æt.* 42, pregnant for the first time, who became affected immediately after conception with vomiting, and two months and a half after, with dysenteric diarrhoea. Abortion occurred at the end of the fourth month, and recovery followed. GIRDWOOD also cites four cases in which dysentery or diarrhoea was associated with vomiting during early pregnancy.

In TYLER SMITH'S case, obstinate vomiting set in coincidently with conception, and the patient was so reduced as to weigh only forty-seven pounds. With great difficulty she was kept alive. At the end of five months abortion occurred. Death, some months subsequently, from phthisis.

DEZON found benefit in three cases of vomiting from applications of cold water to the epigastrium. ULRICH records a fatal case of vomiting in pregnancy.

In Paris a discussion on the subject of puerperal fever occupied numerous sittings of the Imperial Academy of Medicine. DEPAUL, who contended for the non-essentiality of the disease, stated that cases were not rare in which local alterations were quite wanting. The unknown poison affects not only women in childbed, but pregnant women, the foetus, and even women not pregnant. He had only seen two or three recoveries out of some hundreds affected. DELPECH had found no good results from the use of quinine. The disease is developed, he contends, almost exclusively in lying-in hospitals; is seldom fatal in private practice. BEAU stated that the reason other observers had not been successful with quinine was that they had not used it in the proper manner. His method was to give

very large doses, a purgative and an emetic being given beforehand. HERVEY DE CHEGOIN distinguishes a putrid and a purulent form, and he recommends injections into the uterus as a prophylactic measure. TROUSSEAU believes the disease identical with pyæmia after operations, surgical typhus, &c. A specific infection of the placental wound is the cause. DUBOIS believes the cause of the disease to be an unknown primary affection of the blood. He is not convinced of the contagious character of the disease. In true puerperal fever he had found all measures useless. CRUVEILHIER believes that the disease is a traumatic fever of lying-in women. He recommends the substitution of smaller for the present large lying-in institutions. DANYAU contends that puerperal fever is a peculiar disease, of miasmatic origin. CAZEAUX is a firm opponent of the doctrine of the essentiality of puerperal fever. Its contagious character is not to be disputed. He had never seen a patient die who had been freely salivated with calomel, but on the other hand it was very difficult to produce this free salivation. BOUILLAUD, in the main, agrees with the views of HERVEY DE CHEGOIN. VELPEAU believes that the disease is an inflammation of the peritoneum, lymphatics, and veins, or a purulent or putrid infection modified by the puerperal state. Therapeutic measures are of more service than many others seem to allow. According to GUERIN, the presence of the placental wound is the cause of the fever. If air be admitted into the uterus, the coagula and lochia become altered, and the altered fluids absorbed.

BEHIER ('Lettres,' &c.) gives an account of the necropsies of eighty-five women who died from puerperal fever, and of the symptoms ushering in the disease.

PIDOUX believes that the uterus is the centre of the disease, but not necessarily its point of origin. According to MATTEI, the cause of the disease is neither a certain miasm nor a peculiar contagion, but an altered condition of the fibrin and plastic lymph, dependent on certain circumstances, one of the most important of which is absorption of the lochia. The lymph fails thus to close the open orifices, and the blood thus becomes affected. CHAVANNE sees a complete identity between the various forms of puerperal fever and those affections witnessed after surgical operations. LEGROUX is a partial believer in the essentiality of the disease; the fever with him is primary, the local affections secondary. DOR found that, during an epidemic at the Lying-in-Hospital at Prague, during the year

1857, the state of the weather had a considerable influence. A much larger proportion of the women delivered in cold and wet days were affected than others.

SCHULTEN records the microscopic appearances of the blood of several women suffering from puerperal diseases. The chief of the changes observed was a fatty condition of the white corpuscles, but this was not present in all cases.

VIRCHOW states, that from the autumn of 1856 to the spring of 1858, eighty-three fatal cases of puerperal disease occurred in the Charité of Berlin. The disease was most fatal in the winter months, a fact attributed by the author to sparing ventilation. Then follows an account of the chief post-mortem appearances observed.

MARTIN believes that there is a form of puerperal fever dependent on a propagation of the endometritis into the Fallopian tubes, and an effusion of the purulent products of this inflammation into the peritoneal cavity. It is important not to use too much palpation, or the contents of the tubes may be pressed into the cavity.

DISEASES OF CHILDREN.

GENERAL TREATISES, HYGIENE, STATISTICS, ETC.

Barker.—On the Hygienic Management of Infants and Children. Churchill, London. 8vo, pp. 115.

Plath.—Briefe eines Arztes an eine junge Mutter. [Letters from a Physician to a Young Mother.] Hamburg, 1858. (Sch., 10, 129.)

West.—Lectures on the Diseases of Infancy and Childhood. 4th ed., pp. 755. London, 1859.

Declat.—Hygiène des enfants nouveau-nés. [Hygiene of Infancy.] Paris, 1858-59. pp. 316.

Samson.—Hygiène oculaire de l'enfance. Paris, 1858. pp. 48. (Sch., 12, 360.)

Küttner.—Ueber den Einfluss des Geschlechts auf Kinderkrankheiten. [The Influence of Sex on the Diseases of Children.] Journ. f. Kinderkr., 1 and 2, 1839. (Sch., 7, 32.)

Gerhardt.—Krankheiten des ersten Lebensjahres. Mittheilungen aus der Poliklinik zu Würzburg. [Diseases of the First Year of Life.] Deutsche Kl., 9, 1858. (Sch., 6, 309.)

- Condie.**—Report on the Diseases of Children. In *North Amer. Med.-Chir. Rev.*, Jan. 1859, p. 120.
- Luszensky.**—Dritter Jahresbericht des öffentlichen Kinderkrankeninstituts zu Mariahilf in Wien. [Third Report of the Hospital for Children, Vienna.] *Journ. f. Kinderk.*, 3 and 4, 1859. (Sch., 8, 199.)
- Ammon.**—Die ersten Mutterpflichten und die erste Kindespflege. [First Duties of the Mother, &c.] 8vo. durchgesehene Auflage. *Leipzig*, 1858. (Canst., iv, 428.)
- Meier.**—Das Kind in seinen ersten Lebensjahren. Skizzen über Leibes- und Geisteserziehung. [The Infant's First Year.] *Leipzig*, 1858. (Canst., iv, 428.)
- Chancerel.**—Soins hygieniques à donner à l'enfant depuis sa naissance jusqu' au sevrage. [Hygiene of Infants.] *Paris*, 1858. (Canst., iv, 428.)
- Amblard.**—De l'allaitement. [On Lactation.] *Paris*, 1858. (Canst., iv, 428.)
- Naudeau.**—De l'allaitement. [On Lactation.] *Paris*, 1858. (Canst., iv, 428.)
- Patron.**—De l'allaitement maternel. [On Lactation.] *Paris*, 1858. (Canst., iv, 428.)
- Schreber.**—Zur physischen Erziehung der Kinder. [Physical Education of Children.] *Jahrb. f. Kinderheilk.*, part iv, 1858. (Canst., iv, 428.)
- Streng.**—Die einfachsten und natürlichsten Mittel, die Kinder ohne Anwendung der Arzneien fortwährend gesund zu erhalten. [The Preservation of the Health of Children by simple and natural means.] 2d ed. *Augsburg*, 1858. (Canst., iv, 428.)
- Wittmaack.**—Populäres Handbuch der Diätetik. [Popular Handbook of Dietetics.] *Leipzig*, 1858. (Canst., iv, 428.)
- Pollitzer.**—Ideen zur Anbahnung einer wissenschaftlichen Diätetik und physischen Erziehung des Kindes. [Physical Education, &c., of Children.] *Jahrb. f. Kinderheilkunde*, Jahrg. i, part iii, 1858. (Canst., iv, 428.)
- Pollitzer.**—Zur Therapie der wichtigsten krankheiten des kindlichen Alters. [Therapeutics of the more important Diseases of Childhood.] *Jahrb. f. Kinderk.*, ii, 144, 1859. (Sch., 12, 323.)
- Schauenstein und Spaeth.**—Ueber den Uebergang medikamentärer Stoffe aus dem Kreislaufe der Säugenden in ihrer Milch. [On the Conveyance of Medicines from the Mother to the Child by means of the Milk.] *Jahrb. f. Kinderheilk.*, Jahrg. ii, part i, 1858. (Canst., iv, 428.)
- Letourneau.**—Quelques observations sur les nouveau-nés. [On New-born Children.] *Paris*, 1858. (Canst., iv, 428.)
- Meigs.**—Ueber Semiotik und das Verfahren bei der Untersuchung kranker Kinder. [Semeiology and Investigation of Diseases of Children.] *J. f. Kinderk.*, 7, 8, 1858. (Canst., iv, 428.)
- Mayr.**—Ueber Untersuchung und Semiotik des kranken Kindes. [Semeiology and Investigation of Diseases of Children.] *Jahrb. f. Kinderheilk.*, Jahrg. ii, part i, *Wien*, 1858. (Canst., iv, 428.)
- Herrmann.**—Die Veränderungen in der Physiognomie und den Geberden kranker Kinder. [On the Alteration in the Physiognomy and Gestures of Sick Children.] *Journ. f. Kinderkrank.*, 1 u. 2, 1858. (Canst. iv, 429.)
- Loeschner.**—Sechzehnter Jahresbericht über den Stand und die Wirksamkeit des Franz-Joseph-Kinderspitals in Prag im Jahre 1857. [Sixteenth Report of the Hospital for Children at Prague.] (Canst., iv, 429.)
- Mauthner.**—Briefliche Mittheilungen aus dem St. Annen-Kinderspitale in Wien. [Reports from the St. Anne's Hospital at Vienna.] *Journ. f. Kinderk.*, 1, 2, 1858. (Canst., iv, 429.)

- Schoepf-Merei.**—Zweiter Bericht über das klinische Hospital für Kinderkrankheiten zu Manchester. [Second Report of the Clinical Hospital for Diseases of Children, Manchester.] Journ. f. Kinderkrank., 9, 10, 1858. (Canst., iv, 429.)
- Fage.**—Das Kinderhospital in Christiania während der Jahre 1855—1857. [The Children's Hospital at Christiania during the years 1855-57.] Journ. f. Kinderkrank., 11, 12, 1858. (Canst., iv, 429.)
- Hauner.**—Therapeutisches aus dem Kinderhospitale zu München. [Therapeutics at the Children's Hospital, Munich.] Jahrb. f. Kinderheilk., ii, p. 49, 1859. (Sch. 12, 322.)

The treatises of BARKER, PLATH, DECLAT, AMMON, MEIER, CHANCEREL, SCHREBER, STRENG, and POLLITZER, have reference to the hygiene of infancy, and the various precautionary and other measures to be taken in order to preserve the health of children.

The new edition (fourth) of WEST's 'Lectures on the Diseases of Infancy and Childhood,' contains additional and new matter on diphtheria, disorders of the mind in children, idiocy, &c.

Valuable statistical information is contained in the several "reports" of children's hospitals, above enumerated, by KÜTTNER, GERHARDT, LUSZINSKY, LOESCHNER, MAUTHNER, &c.

SPECIAL TREATISES, ETC.

1. DISEASES OF THE BRAIN, SPINAL CORD, NERVES, AND ORGANS OF THE SENSES.

- Vogt.**—Die essentielle Lähmung der Kinder. [On the Essential Paralysis of Children.] Berne, 1858. pp. 86. (New York Journ., Jan., 1859, 117.)
- West.**—On Cerebral Symptoms independent of Cerebral Disease. Med. Times and Gaz., xl, 623.
- Kidd.**—On Distortion of the Features in Newly Born Infants. Dub. Quar. Journ., Feb., 1859, 155.
- Philson.**—Chronic Hydrocephalus. Lancet, 1859, vol. i, p. 19.
- Köhler.**—Fälle von opisthotonus, abhängig von Rückenmarkserkrankung bei hydrocephalisch erkrankten Kindern. [Cases of Opisthotonos dependent on Disease of the Spinal Cord in Hydrocephalic Children.] Journ. f. Kinderkr., 5 and 6, 1859. (Sch., 9, 331.)
- Brainard.**—On the Treatment of Chronic Hydrocephalus by Injections of Iodine. Chicago Med. Journ., April, 1859. (North Amer. Med.-Chir. Rev., July, 1859, 713.)
- Watson.**—Croton Oil as a Counter-irritant in Hydrocephalus. Brit. Med. Journ., 1859, 540.
- Bang.**—Ueber der Heilbarkeit der tuberkulösen Meningitis. [On the Curability of Tuberculous Meningitis.] Biblioth. for Laeger, vol. vii, p. 241. (Sch., 5; 196.)

- Harvey.**—On the Comparative Value of Bloodletting and Purging in the early stages of the Acute Hydrocephalus, and on the Extent to which each of them should be carried. *Glasg. Med. Journ.*, April, 1859, p. 1.
- Coldstream.**—On the Employment of Iodide of Potassium in Diseases of the Brain in Children. *Edin. Med. Journ.*, Dec., 1859.
- Carson.**—Iodide of Potassium in Hydrocephalus. *Med. Times and Gaz.*, xxxix, 245.
- Ballard.**—Light the only Cause of Purulent Ophthalmia of Infants. *Lancet*, 1859, i, 540.
- Valenta-Wallmann.**—Ueber Hydromeningocele. [On Hydromeningocele.] *Zeitschr. der k. Gesellschaft der Aerzte in Wien*, 1858, No. 25. (Canst., iv, 430.)
- Facen.**—Della siriasi infantile. [On Infantile Meningitis.] *Gaz. Med. Ital. Lomb.*, 1858, No. 27. (Canst., iv, 430.)
- Koechlin.**—Sur quelques cas de tubercules de l'encephale chez les enfants. [Cases of Cerebral Tuberculosis in Children.] *Paris*, 1858. (Canst., iv, 430.)
- Horwitz.**—De meningitide tuberculosa. *Berolini*, 1859. (Canst., iv, 430.)
- Chaplin.**—Eingebalgter Abscess der linken Gehirnhemisphäre mit Gehirnwassersucht. [Abscess of the left Cerebral Hemisphere, &c.] *Jour. f. Kinderkrankheiten*, 1858, parts 11, 12. (Canst., iv, 430.)
- Betz.**—Hyperæsthesie rachitischer Kinder. (On the Hyperæsthesia of Rachitic Children.] *Jahrb. f. Kinder-Heilkunde*, 1858, part 3. (Canst., iv, 430.)
- Grey.**—Ueber den Nutzen der Chloroformdämpfe gegen den Veitstanz. [On Chloroform in the Treatment of Chorea.] *Journ. f. Kinderkrank.*, 1858, parts 3, 4. (Canst., iv, 430.)
- Gillette.**—Behandlung der Chorea mit grossen Gaben tartarus stibiatus. [On Large Doses of Tartar Emetic in the Treatment of Chorea.] *Med. Ztg.*, No. 46. *Berlin*, 1858. (Canst., iv, 430.)
- Hochstetter** (aus Preussen).—Die Wurzel Aliqua plantago gegen Chorea und Epilepsie. [On the Employment of the roots of Aliqua plantago in Cases of Epilepsy and Chorea.] (Canst., iv, 430.)
- Graefe.**—Ueber die diphtheritische Conjunctivitis. [On Diphtheritic Conjunctivitis.] *Jahrb. f. Kinderheilk.*, 1858, part 1. (Canst., iv, 430.)
- Desmarres.**—Conjunctivite purulente des nouveau-nés. [On the Purulent Conjunctivitis of New-born Children.] *Gaz. des Hôp.*, 1858, No. 82. (Canst., iv, 430.)
- Morvan.**—Blutung aus dem Ohre in Folge eines Trauma des Kindes. [Bleeding from the Ear in a Child in consequence of a Dream.] (*Arch. gén.*, vol. v. *Jahrb. der Kinderheilk.*, 1858, part 2.) (Canst., iv, 430.)
- Voltolini.**—Pathologisch-anatomische Untersuchungen durch Scharlach erkrankter Ohren. [On the Pathology of Affections of the Ears produced by Scarlet Fever.] *Med. Ztg. v. d. Verein f. Heilk. in Preussen*, No. 43, *Berlin*, 1858. (Canst., iv, 430.)
- Lebert.**—Ueber Entzündung der Hirnsinus bei Otitis interna. [On Inflammation of the Cerebral Sinuses in Internal Otitis.] (*Virchow's Archiv*, No. 3, 1858. (Canst., iv, 430.)

Vogt draws the following general conclusions on the subject of

essential infantile paralysis: That form of infantile paralysis which has been called essential, is a nervous paralysis, the residue of a congestive or inflammatory condition of the nervous centres or nerves, and this condition, together with the paralysis, may be removed sooner or later by natural processes.

KIDD believes that the distortion of the features occasionally noticed in newly born children is caused by paralysis of the portio dura, differing from McClintock, who is disposed to attribute it to "spasmodic tic."

In PHILSON's case of hydrocephalus, Gölis's treatment, by small and repeated doses of calomel, was found efficacious.

KÖHLER states that the condition of the spinal cord in cases of hydrocephalus has been too frequently overlooked; the convulsions, &c., observed in cases of hydrocephalus are not always due to cerebral irritation. Three cases are related exemplifying these views.

BRAINARD relates two cases in which iodine was injected into the lateral ventricles of the brain, one by himself, the other by Towmesko, of Bucharest. In neither case was the injection followed by serious consequences. The permanent good effected does not appear to have been considerable.

WATSON observed symptoms of hydrocephalus a few weeks after the cure of an eczematous eruption of the scalp in a child, æt. 2. Croton oil was applied with perfect success.

BANG remarks that although tubercular meningitis is considered incurable by some authorities (Camper, Trousseau), he has been able to collect eighteen well-authenticated cases of cure. Tuberculous meningitis is characterised by its attacking scrofulous children. A cure is only to be hoped for when improvement can be effected in the state of the blood. Bleeding is only admissible at the commencement. Prophylaxis, by the use of anti-scrofulous remedies and derivants, is very important. Blisters, cold affusion to the head, and, if the disease has reached the exudative stage, blisters, croton oil, or tartar emetic, rubbed in over the shaved scalp, are recommended. In the early stage of the affection, to which period alone HARVEY's observations refer, this author considers bloodletting as very important, its action being subservient to the action of purgatives, and the benefit derived from it being that it reduces the irritability of the stomach, and thus allows purgatives to be given. "A case which does not admit of bleeding does not admit of cure." This remedy has of late, it is contended, been too much neglected.

COLDSTREAM has found iodide of potassium a very valuable remedy in the treatment of those numerous ailments of children indicative of a tendency to hydrocephalus. It is more especially serviceable when there exists more or less of the scrofulous diathesis. CARSON records a case in which a patient in the last stage of hydrocephalus was cured by the administration of two grains of this medicine every two hours. Other measures had been tried unavailingly.

BALLARD believes that the only cause of purulent ophthalmia in infants is exposure to the bright light during the day.

WALLMANN proposes the name hydromeningocele for that pathological condition in which there is an external tumour filled with serous fluid and communicating with the arachnoid cavity. VALENTA describes a case of this kind in which the tumour was of considerable size. The safest treatment is that by compression.

BETZ states that the hyperæsthesia in rachitis is situated in the nerves of the periosteum and bones. A painful condition of the bones is, according to this author, an early symptom of rachitis.

GREY speaks very highly of the efficacy of chloroform inhalations in the treatment of chorea. The chloroform is given with safety in large quantities, precaution being taken to allow of free respiration and access of fresh air. This remedy is stated to have a much more rapid effect than other methods of treatment.

II. DISEASES OF THE ORGANS OF RESPIRATION AND CIRCULATION.

Pickford.—On the Marshall Hall-Method of Treatment in Asphyxia. *Lancet*, i, 19, 1859.

Wertheimer.—Ueber Angina pharyngea cedematosa im Kindesalter. [On the Angina Pharyngea Cedematosa of Childhood.] *Journ. f. Kinderk.*, 1 and 2, 1859. (Sch., 7, 35.)

Plagge.—Schwellung der dem Vagus auliegenden Drüsenpaquete als wahrscheinliche Ursache des Asthma Millari. [Enlargement of the Glands near the Vagus as a probable Cause of Millar's Asthma.] *Memorab. a. d. Prax.*, iii, 7, 1858. (Sch., 4, 43.)

Schottin.—Ueber Asthma thymicum. [On Thymic Asthma.] *Arch. f. Physiol. Heilk. N. F.*, iii, p. 205. (Sch. 7, 33.)

Jendrassik.—Ueber den Bau der Thymusdrüse. *Jahrb. f. Kind.*, part 3, 1858. (Canst., iv, 442.)

Friedleben.—Die Physiologie der Thymusdrüse in Gesundheit und Krankheit. [The Physiology of the Thymus in Health and Disease.] *Frankfurt a M.*, 1858. (Canst., iv, 443.)

- Moore.**—Affections of the Chest in Young Persons and Children. *Dub. Hosp. Gaz.*, June and Aug., 1859, pp. 181—226.
- Rauchfuss.**—Ueber die Lungenerweichung der Säuglinge. [On Softening of the Lungs in Infants at the Breast.] *Journ. f. Kinderk.*, 3 and 4, 1859. (Sch., 6, 311.)
- Behrend.**—Ueber die chronische Heiserkeit der Kinder; deren Ursache und Behandlung. [On the Chronic Hoarseness of Children.] *Journ. für Kinderk.*, 9 and 10, 1858. (Sch., 1, 61.)
- West.**—On Sudden Death in Infancy and Childhood. *Med. Times and Gaz.*, xl, 521.
- Bouchut.**—Ueber die Symptome und die Behandlung der Koryza der Neugeborenen. [The Symptoms and Treatment of the Coryza of Infants.] *Journ. f. Kinderk.*, 5 and 6, 1858. (Canst., iv, 437.)
- Forsyth Meigs.**—Ueber acute und chronische Koryza der Kinder. [The Acute and Chronic Coryza of Children.] *Journ. f. Kinderk.*, 11 and 12, 1858. (Canst., iv, 437.)
- Bohn.**—Die Croupepidemie 1856-57 zu Königsberg in Pr. [The Epidemics of Croup at Königsberg in 1856-57.] *Königsb. Med. Jahrb.*, parts 1 and 2. (Canst., iv, 437.)
- Kerli.**—Studien und Erfahrungen in Betreff des Croup, des Pseudocroup und des Millar'schen Asthma. [On Croup, &c.] *Deutsche Klinik*, 1858, No. 5. (Canst., iv, 437.)
- Bouchut et Empies.**—Mémoire sur l'albuminurie dans le croup. [Albuminuria in Croup.] *Compt. Rend.*, No. 2, 1858. (Canst., iv, 437.)
- Bouchut.**—Sur la mortalité du croup à domicile et dans les hôpitaux de Paris. [On the Mortality of Croup in private houses and hospitals at Paris.] *Gaz. des Hôp.*, 1858, No. 118. (Canst., iv, 437.)
- Kortüm.**—Praktische Bemerkungen zur Behandlung des Croup. [Treatment of Croup.] *Deutsche Klinik*, 1858, No. 20. (Canst., iv, 437.)
- Pudon.**—Behandlung des Croup durch nasskalte Umschläge und Kupfersulphat. [Treatment of Croup by Wet Applications and Sulphate of Copper.] *Journ. für Kinderkrankh.*, 1858, parts 1 and 2. (Canst., iv, 437.)
- Hauner.**—Einige Bemerkungen zu der Darstellung des Dr. Luszinsky in Wien über den Croup und dessen Behandlung. [Criticism of Dr. Luszinsky's Statements in reference to Croup and its Treatment.] *Journ. für Kinderkrankheiten*, 1858, parts 3 and 4. (Canst., iv, 437.)
- Bouchut.**—D'une nouvelle méthode de traitement du croup par le tubage du larynx. [A new Method of Treatment of Croup by Tubage of the Larynx.] *Moniteur des Hôpit.*, 1858, No. 110. *Union, Gazette, &c.* (Canst., iv, 437.)
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- Bonnet.**—Ueber die Ursachen des Todes nach der Tracheotomie beim Croup. [The Causes of Death after Tracheotomy in Croup.] *Journ. f. K.*, 1858, parts 3 and 4. (Canst., iv, 437.)
- Chailly.**—Zur Beurtheilung des Werthes der Tracheotomie gegen Croup. [The Value of Tracheotomy in Croup considered.] *J. f. K.*, 1858, parts 7 and 8. (Canst., iv, 437.)
- E. G.**—Ueber Croup und Tracheotomie. *J. f. K.*, 1858, parts 1 and 2. Canst., iv, 437.)
- Bellaspect.**—Du croup. *Paris*, 1858. (Canst., iv, 437.)
- Millard.**—De la tracheotomie dans le cas de croup. [Tracheotomy in Croup.] *Paris*, 1858. (Canst., iv, 438.)
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- Conway Evans.**—On Tracheotomy in Croup. *Rep. of Med. and Chir. Soc., Lancet*, 1859, ii, 215.
- Trousseau.**—On the Treatment of Croup. *Bull. de l'Acad.*, 1858.
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- Hauner.**—Aphorisms on Croup. *Journ. für Kinderkrank.*, vol. 30.
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- Bennet.**—Chronische Pneumonie im Kindesalter. [Chronic Pneumonia in Childhood.] *J. f. Kinderk.*, 3 and 4, 1858. (Canst., iv, 438.)
- Beau.**—Ueber Sitz und Wesen des Keuchhustens. [The Seat and Nature of Hooping-cough.] *J. f. Kinderk.*, 3 and 4, 1858. (Canst., iv, 438.)
- Emploi de marum verum contre le toux spasmodique et la coqueluche. [On Marum Verum as a Remedy for Spasmodic Cough and Hooping-cough.] *Jour. de Méd. Bruxelles*, 1858. (Canst., iv, 438.)
- Schubert.**—Bitter Almond-water in Hooping-cough. *Ann. de Thérapeutique*, 1859, p. 32.
- Atcherley.**—On the Treatment of Hooping-cough by diluted Nitric Acid. *Med. Times and Gaz.*, xxxix, 210.
- Vaccination as a Remedy for Hooping-cough. *Allgem. Med. Central Zeitung*, Oct. 2d, 1858. (Noirot, 207.)

- Cormak.**—Ueber die Natur und Behandlung der Lungenschwindsucht. [On the Nature and Treatment of Pulmonary Consumption.] *Erlung*, 1858. (Canst., iv, 438.)
- Schuh.**—Blutgefässchwämme bei Kindern. [Vascular Tumours in Children.] *Jahrb. f. Kinderk.*, 1858, part 2. (Canst., iv, 434.)
- Legendre.**—Beseitigung der Gefässmuttermähler durch Vaccination. [Vaccination for the removal of Nævi Materni.] *Archiv. Gén. J. f. Kinderk.*, 3 and 4, 1858. (Canst., iv, 434.)
- Bokai.**—Kephalohæmatoma der beiden Scheitelgegenden. [Double Cephalohæmatomata.] *Jahrb. f. Kinderk.*, 1858, part 2. (Canst., iv, 434.)
- Bierbaum.**—Encephalo-hæmatoma verum. *M. Z. v. V. f. H. in P. Jahrg.*, i, 1858, No. 38. (Canst., iv, 434.)
- Rigby.**—Two Cases of Cranial Blood-swelling, with remarks on the Nature of these Tumours. *Obstet. Trans.*, vol. i, p. 231.

PICKFORD relates a case of asphyxia neonatorum successfully treated on the Marshall Hall method.

Under the term *angina pharyngea oedematosa*, WERTHEIMER distinguishes an inflammatory serous infiltration of the submucous cellular tissue of the throat. The respiration is quickened, difficult, and accompanied by a peculiar gurgling sound. It occurs chiefly in sickly children, with white skin and imperfect osseous development. Emetics are of great efficacy in the treatment of the affection.

PLAGGE relates the case of a child, otherwise healthy, æt. 2½, who was affected with enlargement of the glands under the right ear. Laryngismus set in, and was cured by the application of iodine over the cervical enlargement.

As examples of thymic asthma, SCHOTTIN relates three cases, two of which were fatal. The superior part of the thymus was enlarged, thickened, and structurally altered. The pressure of the thymus on the vagus, or the large vessels in the neighbourhood, and induced primary or secondary irritation of the vagus or of its recurrent, which latter, reflected on the glottis, produced the disease.

JENDRASSIK considers that the structure of the thymus gland is analogous to that of the organs connected with the lymphatic system, especially with that of the follicles of Peyer's glands in the intestine.

The work of FRIEDLEBEN is an elaborate inquiry into the history, structure, diseases, &c., of the thymus gland. A very copious analysis of the work is given in 'Canstatt's Jahresb.,' 1858, vol. iv, p. 443.

MOORE relates a fatal case of bronchitis in a child, æt. 9 months. In subsequent papers cases are related, and remarks appended by the

same author, on various points in the pathology, &c., of bronchitis and broncho-pneumonia, and on pleuritic affections, in children.

RAUCHFUSS gives the results of his investigations on the pathological or cadaveric nature of softening of the lung, as described by Kostlin and Bednar. In four hundred cases examined, the independent form of the affection was found only eight times. Softening of the lung was found in twenty-nine cases in all. The age in the eight cases varied from ten days to six months. The other post-mortem appearances in these cases are described in detail. The conclusions of the author are, that there are two kinds of softening of the lung-substance—the one dependent on local and general pathological conditions, the other of a cadaveric nature, and due to the acid contents of the stomach passing into the trachea (confirming Bednar's original views on this subject). That these two kinds of softening may exist together.

BEHREND records three cases of obstinate hoarseness in children successfully treated by the application of solid nitrate of silver to the mucous membrane of the throat and entrance to the windpipe. The author considers that there is a mild form of œdema of the mucous membrane present in such cases, perhaps identical with that known as "clergyman's sore throat."

WEST remarks on the extreme frequency of sudden death during the first year of life. Of 627 cases of sudden death in London, in 1854, 236 were cases of infants under a year old. Such death is oftenest produced, the author believes, by sudden interference with the respiratory process, and in three out of four cases it is probably due to laryngismus stridulus. Any spasmodic disorder of respiration, sudden impressions on the nervous system, sudden change of temperature, position, &c., may, by exciting convulsions, cause death in this sudden way. Another cause of sudden death in infancy is extensive and sudden invasion of the respiratory organs by disease, as where large portions of the lungs become collapsed, or where serous effusion takes place suddenly into the cavity of the pleuræ.

BOUCHUT recommends the insertion of silver, curved canulas in the nostrils in cases of coryza in infants, in order that the act of sucking may not be interfered with, this being contemporaneous with other treatment.

BOHN describes very fatal epidemics of croup in Königsberg. The mortality was seventy-six per cent. False membranes, varying

in thickness and character, occupied the upper portions of the respiratory passages, extending lower down in most cases. The lungs exhibited hypostasis, lobular and lobar pneumonia, collapse, cedema, and emphysema. The duration of the disease varied from half a day to eleven days. The bronchial and lung affections were, in the author's opinion, the chief efficient causes of death. Tracheotomy was employed in four cases, without success in all. Lusinsky's method of treatment, viz., by carbonate of potash, was not found to be of service.

BOUCHUT and EMPIES found, that in eleven out of fifteen cases of croup, albuminuria was present, disappearing with the disease.

BOUCHUT states that the mortality from croup has been increasing very rapidly during the last fifteen years, which he attributes to the surgical treatment of this disease of late in vogue.

BOUCHUT proposes a new method of treatment in cases of croup, viz., catheterism, or tubage of the glottis. The silver tube used for the purpose is cylindrical, straight, nearly an inch long. Two rounded projections receive, as in a kind of slit, the inferior vocal cords on each side, and the tube is thus kept *in situ*. The tube is introduced by means of a male catheter, open at its two ends. In Bouchut's cases the treatment was, however, not successful. GROS reports a case of croup treated by Bouchut's method, and which ended favorably.

MAYER states that favorable results have followed the application of glycerine to the interior of the larynx in cases of croup. BOUCHUT describes a new phenomenon in the latter stages of croup—anæsthesia of the skin. This, which is the commencement of asphyxia, is, he states, the period for operative measures.

BROADBENT records a case of tracheotomy for croup in a child ten months old. The operation was for a time successful, but death took place without any apparent cause thirty-three hours after.

In reference to the operation of tracheotomy in croup, CONWAY EVANS contends that the objections entertained in this country and in America to the operation are without valid foundation. These objections he severally examines and discusses, with the view of showing that the operation is really less dangerous and difficult than usually supposed. The early performance of the operation is insisted on; the causes of death, when death occurs after the operation, examined, and the circumstances which tend to diminish the chances of success from the operation referred to. On the

operation itself, TROUSSEAU remarks that it is necessary to have a large, double canula; the neck is to be surrounded by a "cravate," in order that the air inspired may be warm and moist. The wound must be cauterized, to prevent false membrane forming, and great care taken to give sufficient alimentary matter. He lays great stress on the topical remedies.

BEAU asserts that whooping-cough is nothing more than an inflammation of the mucous membrane just above the glottis. The attacks of coughing are brought on by the secretions from this situation descending into the larynx.

As a remedy for whooping-cough, SCHUBERT gives every three hours bitter-almond water, in doses of one to two drops, gradually increased to eight or ten drops, and mixed with a small quantity of water. ATCHERLEY administers five to fifteen minims of diluted nitric acid every two or three hours, employing at the same time a stimulating embrocation to the chest, and taking care that due attention is paid to the state of the bowels, &c. On the effect of vaccination as a remedy for whooping-cough, an experiment was made on an extensive scale, in the year 1856, in the government of Kowno, in Russia. In many cases no effect was observed on the progress of the malady, but in others it was modified in a favorable manner. The vaccine disease proceeded regularly in all cases.

SCHUH prefers the knife to the use of the electric puncture in the treatment of vascular tumours in children. LEGENDRE proposes vaccination for the cure of *nævi materni*.

By BOKAI, BIERBAUM, and RIGBY, the particulars of cases of cephalo-hæmatomata are related. In Bokai's case there was a tumour on each side. Alluding to the diagnosis in cases of this affection, he states that the conditions which may be confounded with it are—the caput succedaneum, encephalocele, and hydrancephalocele. Rigby, in reference to the treatment, states that he follows Naegele's plan, which is, to do nothing, and that the effusion will always disappear.

III. DISEASES OF THE ORGANS OF DIGESTION AND THEIR APPENDAGES.

Routh.—Defective Assimilation in Infants; its prevention and treatment. Rep. of Med. Soc. of Lond., *Lancet*, 1859, i, 613.

Ballard.—On a new Theory of the Cause of some of the Diseases of Infants and the Puerperal State. *Lancet*, 1859, vol. i, p. 345.

- Schwartze.**—Pathologisch-anatomisches Bild der cholera infantum. [Pathological Appearances in Cholera Infantum.] Journ. f. Kinderk., 5 and 6, 1859. (Sch., 9, 332.)
- Smith.**—Post-mortem Appearances in Cholera Infantum, with Cases. New York Journ. of Med., Jan., 1859, p. 61.
- Kuttner.**—Einige Bemerkungen über die Dystrophie der Kinder. [On the Dystrophy of Children.] Jour. f. Kinderk., 1858, parts 3 and 4. (Canst., iv, 450.)
- Steinberger.**—Ueber Bildung der Milchzähne und die ihren Durchbruch begleitenden Erscheinungen. [First Dentition, its accompanying Symptoms.] Jahrb. f. Kinderk., 1858, part 1. (Canst., iv, 450.)
- Blandin.**—De la première dentition et de ses accidents. [First Dentition, its Effects.] Paris, 1858. (Canst., iv, 450.)
- Hannard.**—Des accidents de la première dentition. [Id.] Paris, 1858. (Canst., iv, 450.)
- Ross.**—Cancrum Oris. Med. Circ., xiv, 75.
- Henriette.**—De la gingivite ulcéreuse chez les enfants et de son traitement. [Ulcerative Gingivitis; its Treatment.] Journ. de Méd. de Bruxelles, March, 1858. (Canst., iv, 450.)
- Delvaux.**—Apropos des considérations de M. le Dr. Henriette sur la gingivite ulcéreuse des enfants. [Remarks on the foregoing paper.] Journ. de Méd. de Bruxelles, April, 1858. (Canst., iv, 450.)
- Resultate der Heilversuche mit Pepsin im St. Joseph-Kinderspitale. [Results of the use of Pepsin in St. Joseph's Hospital.] Jahrb. f. Kinderheilk., 1858, part 3. (Canst., iv, 450.)
- Gubler.**—Ueber den Ursprung und die Bedingungen der Entwicklung des Soorpilzes. [On Thrush.] J. f. Kinderk., 1858, parts 5 and 6. (Canst., iv, 450.)
- Briquet.**—Ueber die Ansteckungsfähigkeit des Soor. [On the Communicability of Thrush.] J. f. Kinderk., 1858, parts 5 and 6.
- Flugel.**—Behandlung des Soor bei jungen Kindern. [Treatment of Thrush.] Basger ärztz. Int. Bl., 29, 1859. (Sch., 12, 324.)
- Faure.**—Ueber die Nachkrankheiten der Diphtheritis. [The Sequelæ of Diphtheritis.] J. f. Kinderk., 1858, parts 1 and 2. (Canst., iv, 450.)
- Bokai.**—Die Retropharyngealabscesse bei Kindern. [Pharyngeal Abscess in Children.] Jahrb. für Kinder., 1858, 4. (Canst., iv, 450.)
- Schulter.**—Die Behandlung der Diarrhoe bei Kindern in den ersten Lebensjahren. [Treatment of Diarrhoea in Infants.] Jahrb. f. Kinderh., 1858, part 3. (Canst., iv, 450.)
- Guerdan.**—Die Diarrhoea ab lactatorum, Brechruhr und Gastromalacie der Kinder nebst deren spezifischer Heilmethode. [Treatment of Diarrhoea, &c., in Children.] Heilbronn, 1858. (Canst., iv, 450.)
- Blondeau.**—Du sevrage et de ses rapport avec le choléra infantile. [Weaning, its relations to Cholera Infantum.] Gaz. des Hôp., 1858, Nos. 28, 29. (Canst., iv, 450.)
- Ricordeau.**—De l'entérite cholériforme, survenant chez l'enfant nouveau-né dans les cinq premiers jours de naissance. [On the Choleroïd Enteritis occurring in Infants during the first five days of Life.] Paris, 1858. (Canst., iv, 450.)
- Hexamer.**—Die Kinder-Cholera oder Summer-Complaint in den Vereinigten Staaten, ihre Natur, Verhütung, &c. [Cholera Infantum in the United States.] New York, 1858. (Canst., iv, 450.)

- Weisse.**—Rückblick auf den Gebrauch des rohen Fleisches in der Diarrhoe entwöhnter Kinder. [On the Employment of Raw Meat in the treatment of Diarrhoea of weaned Children.] *Journ. für Kinderk.*, 1858, parts 1 and 2, and 5 and 6. (Canst., iv, 450.)
- Marcus.**—Schreiben über die Häufigkeit des Bandwurmes nach dem Genusse des rohen Fleisches, &c. [Frequency of Tapeworm after the use of Raw Meat.] *J. f. Kinderk.*, 1858, parts 5 and 6. (Canst., iv, 450.)
- Barnes.**—Fatal Obstruction of the Bowel by Meconium. *Lancet*, 1859, ii, 663.
- Farre.**—Acidum nitro-muriaticum gegen gastrische Fieber der Kinder. [Nitro-muriatic Acid in the Gastric Fever of Children.] *J. f. Kinderk.*, 1858, parts 11 and 12. (Canst., iv, 450.)
- Moreau.**—De l'ictère chez les nouveau-nés. [Icterus Neonatorum.] *Paris*, 1858. (Canst., iv, 450.)
- On Kamala as a Vermifuge for Young Children. *Med. Times and Gaz.*, xxxix, 599.
- Mertens.**—Vier Fälle von Verschwärung und Durchlöcherung des wurmförmigen Anhangs. [Perforation of the Appendix Vermiformis.] *J. f. Kinderkrankh.*, 1858, parts 3 and 4. (Canst., iv, 450.)
- Clar.**—Zur Pathologie und Therapie einiger der wichtigsten Dickdarmkrankheiten im kindlichen Alter. [Pathology and Therapeutics of Affections of the Large Intestines in Children.] *Jahrb. f. Kinderhkd.*, 1858, part 4. (Canst., iv, 450.)
- Guersant.**—Ueber die Mastdarmvorfall bei Kindern. [Prolapsus Ani in Children.] *J. f. Kinderk.*, 1859, parts 1 and 2.
- Duchaussoy.**—Ueber die Anwendung des Strychnins gegen den Mastdarmvorfall bei Kindern. [On the Employment of Strychnine in Prolapsus Ani in Children.] *J. f. Kinderkrankh.*, 1858, parts 11 and 12. (Canst., iv, 450.)
- Littre.**—Bildung eines kunstl. After bei einem neugeborenen Kinde. [Formation of an artificial Anus in a New-born Child.] *Journ. f. Kinderk.*, 1858, parts 3 and 4. (Canst., iv, 450.)

The object of ROUTH'S paper is to show that defective assimilation is a chief cause of the mortality of infants, and that this is almost always the result of want of breast-milk and the use of injudicious food.

BALLARD believes that the exercise of the instinctive act of sucking by infants, under circumstances unfavorable to the infant obtaining the necessary supply from the breasts, is attended by an excessive reflex secretion of gastric juice; that the effect of the action of the secretion in question on the mucous membrane of the intestinal canal is the production of frequent green and loose stools. The author attributes many of the ailments, popularly ascribed to teething, to a persistence of this morbid state.

In forty children who died of cholera infantum, SCHWARTZE found in many cases a hyperæmic condition of the cerebral coverings, sometimes extravasations. As a rule, the sinuses of the dura mater were filled with fresh blood-coagula, and with fibrinous formations, more or

less adherent and firm. In one case the venous thrombosis affected all the cerebral veins. The author concludes that, owing to the rapid loss of water by the blood, interference with the circulation of the brain and lungs is produced, and that this explains the rapid mode of death in such cases. The thrombus-formation in the veins of the head and elsewhere is thus favoured, and the fatal result ensues.

SMITH relates four cases of "cholera infantum," with their autopsies. In all the cases there was inflammation of the colon, which he considers a constant element in the disease.

GUBLER states, that the aphthous patches appearing in the mouth of infants, known as muguet or thrush, and constituted by the presence of the parasitic growth *Oidium albicans*, appear only in those diseases accompanied by an alkaline condition of the oral cavity. Strong alkaline washes and mechanical removal of the patches are the means recommended. BRIQUET considers the inflammation of the mucous membrane of the mouth to be the first condition present in cases of this affection. FLUGEL recommends the use of a strong solution of common salt in the cure of the disease.

FAURE alludes to a peculiar condition following attacks of diphtheritis in many patients, characterised by excessive prostration, paleness of the skin, pains in the limbs, faintness, inability to move, &c., a condition liable to have a fatal termination. Bretonneau considers this condition to be one of chronic diphtheritic poisoning.

Retro-pharyngeal abscesses may arise, according to BOKAI, from idiopathic inflammation of the parts themselves, from suppuration of glands in the neighbourhood, and from disease of the adjacent vertebræ. Difficulty of swallowing, alteration of the voice, stiffness of the neck, redness and swelling of the throat, are the chief signs. Twelve cases of this affection are related.

WEISSE has extensively used raw meat as a remedy for diarrhœa in children, and, it is stated, with great success. The remedy appears to have become, as it were, naturalised in the town of St. Petersburg.

BARNES relates the case of a child who died two days after birth. The lower part of the ileum was filled with meconium in a very hardened state; the bowels had never acted.

GUERSANT applies the actual cautery very lightly at opposite

points around the anus for the cure of prolapsus ani in children. This treatment is only had recourse to when others fail.

IV. DISEASES OF THE KIDNEYS AND GENERATIVE ORGANS.

- Bierbaum.**—Krankheiten der Harn- und Geschlechtsorgane. [Diseases of the Kidneys and Sexual Organs.] Journ. für Kinderk., 7—10, 1858. (Sch., 1, 67.)
- Anizon.**—On the Action of Sulphate of Quinine in Albuminuria after Scarlet Fever. Gaz. Hebdom., vi, 7, 1859. (Sch., 9, 333.)
- Arnold.**—Ueber die Nierenaffectationen in Begleitung des Scharlachprocesses. [On the Renal Affections associated with Scarlet Fever.] Memorab. a. d. Praxis iv, 3, 1859. (Sch., 7, 35.)
- Bercieux.**—On the use of Belladonna in the treatment of Involuntary Micturition in Children. Gaz. Hebdom., v, 25, 28, 30, 1858. (Sch., 4, 44.)
- Destouches.**—De l'incontinence d'urine essentielle chez les enfants. [Incontinence of Urine in Children.] Paris, 1858. (Canst., iv, 454.)
- Pluviez.**—Ueber die Mittel gegen das nächtliche Bettpissen und namentlich über eine mechanische Einwirkung bei Knaben. [On a Mechanical Treatment of Nocturnal Incontinence of Urine in Boys.] J. f. Kinderk., 1858, 1 and 2. (Canst., iv, 454.)

BIERBAUM states that the *anuria* observed in infants, sometimes of from twelve to twenty-four hours' duration, is due, not to any special diseased condition of the kidney, but to insufficient fluidity of the nourishment taken. The *dysuria* observed is due to the same cause, and is easily remedied by giving more fluid or by the use of baths. *Enuresis nocturna* is partly a bad habit, and in part an actual disease. It is intermittent in character, is more often seen in scrofulous children or those of arthritic tendency, and during the first dentition; it seldom continues till puberty arrives, but if it does not then cease, is often persistent. The author disapproves of the application of a ligature to the penis, the method of treatment recommended by PLUVIEZ. The most efficacious treatment is the rousing the child for the purpose of evacuating the bladder in the middle of the night, and gradually later and later during this period, in order to accustom this viscus to retain a larger quantity of fluid.

ANIZON believes that the tubuli uriniferi are the seat of the change which results in the production of albuminuria after scarlet fever, and as quinine all passes off by the urine, it is a medicine peculiarly adapted to modify favorably the interior of the tubuli. ARNOLD gives the result of examinations of the urine in 27 cases of

scarlet fever. In 17 there was no consecutive dropsy; in 13 of these more or less albumen and epithelial scales were found at the period of the eruption and desquamation; in 1 case fibrinous casts as well as blood-corpuscles, and in 3 cases no albumen, casts, or epithelium. In 5 out of the 7 dropsical cases, casts, globules, and albumen were found during the attack, and in the other 2 cases albumen and epithelial scales.

BERCIOUS remarks that the good effects of the use of belladonna in cases of involuntary micturition depend on its giving tone to muscles previously in a relaxed, atonic condition. Other remedies—the application of cold, the administration of iron, &c.—he believes act in the same way.

V. DISEASES OF THE BONES AND JOINTS.

Schreber.—Ueber Verhütung der Kyphosis osteopathica. [Angular Curvature.] *Jahrb. f. Kinderkheilk.*, ii, 3, 1858. (Sch., 8, 206.)

Mueller.—Ueber die Entwicklung der Knochensubstanz nebst Bemerkungen über den Bau rachitischer Knochen. [The Development of Bone in relation to Rachitis.] *Leipzig*, 1858. (Canst., iv, 454.)

Goutay.—Du rachitis ou rachitisme et mieux ostéomalacie. [Rachitis, &c.] *Paris*, 1858. (Canst., iv, 454.)

Bouchut.—Du rachitisme. *Gaz. des Hôp.*, 1858, No. 82. (Canst., iv, 454.)

Huschke.—Ueber Craniosclerosis totalis rachitica und verdickte Schädel überhaupt. [Cranial Rachitis, &c.] *Jena*, 1858. (Canst., iv, 454.)

Wedl.—Einige Bemerkungen über rachitische Röhrenknochen und Rachitis. [On Rachitis of the Tubular Bones, &c.] *Zeitsch. f. die k. k. Ges. in Wien*, March, 1858, No. 11. (Canst., iv, 454.)

Klose.—Die Epiphysentrennung eine Krankheit der Entwicklungszeit. [Separation of the Epiphyses a Disease of Development.] *Allg. Med. Centralz. B.*, 1858, Jahrg. 27, Stück 10. (Canst., iv, 454.)

Behrend.—Zur Geschichte der Spina bifida. (See p. 416.)

Flemming.—Die Rückgratskrümmungen. [Spinal Curvatures.] *Dresden*, 1858. (Canst., iv, 454.)

Friedberg.—Behandlung der Hüftkontrakturen. [Treatment of Contractions of the Hip.] *Wochb. der Zeitsch. der Gesells. d. Aertz. in W.*; and *Jahrb. f. K.*, 1858, part 4. (Canst., iv, 455.)

Ueber die guten Erfolge der Ausschneidung des Hüftgelenkes bei Hüftgelenkkaries der Kinder. [Good Effects of Excision in Caries of the Hip-joint.] *J. f. Kinderk.*, 1858, 5 and 6. (Canst., iv, 455.)

Eulenberg.—Einige über Pathologie und Therapie der Deformitäten des Fusses. [Deformities of the Foot.] *J. f. Kinderk.*, 1858, 1 and 2. (Canst., iv, 455.)

Bouvier.—Leçons cliniques sur les maladies chroniques de l'appareil locomoteur professées à l'hôpital des enfants malades pendant les années 1855, 1856, 1857. *Paris*, 1858. pp. 531.

Bouvier.—Leçons cliniques, &c. Déviations de la colonne vertébrale, Atlas de 20 planches. [Clinical Lectures, &c., on Chronic Diseases of the Organs of Locomotion, at the Hospital for Children, Paris.] *Paris*, 1858.

Angular curvature of the spine begins, according to SCHREBER, mostly during the first dentition period, in dyscrasic, scrofulous, weakly children; sometimes in those of good constitutions after attacks of measles, scarlet fever, &c.; also in children placed under unfavorable hygienic conditions. Absolute rest, good food, exposure to air and light, are the chief measures recommended.

MÜLLER's treatise contains an account of the histology of osseous substance, and of the softening processes which occur in rachitis.

VI. DISEASES OF THE SKIN AND CELLULAR TISSUE.

Hardy.—On the Treatment of Purpura Hæmorrhagica by the Administration of Tincture of Larch Bark. (*Dublin Hosp. Gaz.*, 1859, p. 19.)

Behrend.—Cod-liver-oil Soap in the Treatment of Chronic Eczema of Children. *Ann. de Thérap.*, 1859, 135.

Malago.—Tenia cured in eight minutes. *Ann. de Thérap.*, 1859, 259.

Caillaud.—Traité pratique des maladies de la peau chez les infants. [Disease of the Skin in Children.] *Paris*, 1858. (Canst., iv, 456.)

Bazin.—Leçons théoriques et cliniques sur les affections cutanées parasitaires. [Parasitic Cutaneous Affections.] *Paris*, 1858. (Canst., iv, 456.)

Hardy.—Leçons sur les maladies de la peau. Dartres, Syphilides, &c. [Diseases of the Skin.] *Paris*, 1858. (Canst., iv, 456.)

Pollak.—Ueber die acuten contagiösen Exantheme in Teheran und seiner Umgebung. [Acute Contagious Exanthemata in Teheran, &c.] *Wochenbl. der Z. d. G. d. Aerzte in Wien*, 1857, 44, 45. *Jahrb. d. Kinderheilk.*, 1858, part 2. (Canst., iv, 456.)

Paasch.—Pädiatrische Mittheilungen. [Pædiatric Contributions.] *J. f. Kinderk.*, 1858, parts 3, 4. (Canst., iv, 456.)

Jessop.—Practical Remarks on the Recession of the Eruption in Scarlet Fever. *Lancet*, 1859, i, 29.

Trousseau.—Ueber den Scharlach—eine klinische Vorlesung. (*Hôtel Dieu in Paris.*) [On Scarlet Fever.] *J. f. Kinderk.*, 1859, parts 3, 4. (Canst., iv, 456.)

Leubuscher.—Bemerkungen über eine Scharlach Epidemie im J., 1857, bis Anfang, 1858, in Jena und Umgehend. [Epidemic of Scarlet Fever in Jena in 1857-58.] *Pr. Ver. Ztg. N. F.*, i, 26-28, 1858. (Sch., 5, 197.)

Graily Hewitt.—Ueber das Verhältniss der wassersüchtigen Ergüsse zum Scharlach. [The Relation of Dropsy and Scarlet Fever.] *J. f. Kinderk.*, 1858, parts 5, 6. (Canst., iv, 456.)

Morris.—Die schützende Kraft der Belladonna gegen Scharlach. [The Protective Power of Belladonna against Scarlet Fever.] *J. f. Kinderk.*, 1858, parts 11, 12. (Canst., iv, 456.)

Chavasse.—Beiträge zur Therapie des Scharlachfiebers. [Therapeutics in Scarlet Fever.] *J. f. Kinderk.*, 1858, parts 9, 10. (Canst., iv, 456.)

- Kuttner.**—Zur Verwandtschaftsfrage zwischen Scharlach und Masern. [The Affinities between Scarlet Fever and Measles.] *J. f. Kinderk.*, 1858, parts 3, 4. (Canst., iv, 456.)
- Scoutetten.**—On the Prevention of the Sequelæ of Measles and Scarlet Fever. *Gaz. Hebdomadaire*, vi, 13, 1859. (Sch., 6, 313.)
- Kerschensteiner.**—Das Incubationsstadium der Masern. [The Incubation of Measles.] *Jahrb. f. Kinderk.*, 1858, part 4. (Canst., iv, 456.)
- Gelmo.**—Ueber Rubeola. *Jahrb. f. Kinderh.*, 1858, part 3. (Canst., iv, 456.)
- Koestlin.**—Beobachtungen bei einer Masernepidemie. *Wurtemb. Com. Bl.*, 35, 1858. [Observations on Measles.] (Sch., 5, 197.)
- Gunsberg.**—Notizen über die Masernepidemie im Breslau im J., 1857. *Günsb. Ztsch.*, ix, 4, p. 274. [On Epidemics of Measles in Breslau.] (Sch., 4, 43.)
- Veit.**—Ueber hämorrhagische Masern. *Virchows Archiv*, xiv, 1, 2, p. 64, 1858. [On Hæmorrhagic Measles.] (Sch., 2, 199.)
- Trousseau.**—On Measles and its Complications. *L'Union*, 106, 111, 116, 1858. (Sch., 11, 191.)
- Schutz.**—Bösartige Masern. [Virulent Form of Measles.] *Wurtemb. Corr. Bl.*, 5, 1858. (Sch., 11, 103.)
- Mayr.**—Erythema nodosum bei Kindern. [Erythema Nodosum in Children.] *Jahrb. f. Kinderh.*, 1858, part 2. (Canst., iv, 456.)
- Gintrac.**—Betrachtungen über die fragliche Verwandtschaft der Varicella mit der Variola und den Varioloiden. [Relations of Varicella, Variola, and Varioloid.] *Journ. f. Kinderk.*, 1858, parts 3, 4. (Canst., iv, 456.)
- Friedinger.**—Ueber die Einführung einer neuen Genitur der Kuhpockenlymphe, sowie über den Werth und die Geschichte der Regenerirung. [On the Introduction of a new source of Cowpock Lymph, its Value, &c.] *Wien*, 1858. (Canst., iv, 456.)
- Grunder.**—Die Schutzpockenimpfung, eine brennende Frage der Gegenwart. [On Vaccination, &c.] *Breslau*, 1858. (Canst., iv, 456.)
- Andrews.**—Aufbewahrung der Vaccinalymphe. [On the Preservation of Vaccine Lymph.] *J. f. Kinderk.*, 1858, parts 7, 8. (Canst., iv, 456.)
- Landell.**—Innere Anwendung der Vaccinlymphe während einer Pockenepidemie [Internal use of Vaccine Lymph during an Epidemic of Smallpox.] *J. f. Kinderk.*, 1851, parts 7, 8. (Canst., iv, 456.)
- Friedinger.**—Mittheilungen aus den Kinderheilanstalten. [Contributions, &c.] *Jahrb. f. Kinderh.*, 1858, part 2. (Canst., iv, 456.)
- Letourneau.**—Quelques observations sur les nouveau-nés. [New-born Children.] *Paris*, 1858. (Canst., iv, 456.)
- Legroux.**—Emploi du massage dans le traitement du scléreuse des enfants. [Shampooing in the Treatment of Sclerema.] *Gaz. des Hôpitaux*, 1858, No. 118. (Canst., iv, 456.)
- Chapelle.**—Behandlung der tinea favosa durch Oleum naphae. [Oil of Naphtha in Tinea Favosa.] *J. f. Kinderk.*, 1858, parts 5, 6. (Canst., iv, 456.)
- Neligan.**—Gegen den Kopfgrind (Porrigo). *J. f. Kinderk.*, 1858, parts 3, 4. (Canst., iv, 456.)
- Hutchinson.**—Clinical Report on Favus. *Med. Times and Gaz.*, xl, 353, 577, 653.

In the treatment of the eczema of children, BEHREND disapproves of an exclusively local treatment. The crusts are to be removed by

poultices or other means, and the soap then applied; constitutional remedies are at the same time to be made use of.

MALAGO's remedy for tenia is composed of sulphate of lime, dry, and lime recently slacked, the two intimately mixed and applied to the part affected. It is to be carefully watched, and removed at the end of a few minutes.

JESSOP relates the particulars of three cases of scarlet fever where, the eruption having been suddenly checked, the danger was imminent. Flannels steeped in hot mustard and water were applied to the throat, chest, abdomen, upper arm, and thigh, and stimulants given. The issue was successful.

LEUBUSCHER's observations refer to 120 cases of scarlet fever. The various forms which the disease assumed in the different cases are minutely described. In reference to the affections of the pharynx, we find the following:—In slight cases there were redness and swelling of the tonsils, pharynx, and parts adjacent. In more severe cases the appearances were of a diphtheritic character. In the latter a flaky substance separated (in favorable cases) in a few days, leaving a somewhat raw surface beneath. In worse cases ulceration followed. The pharyngeal affection extended either to the nasal fossæ, giving rise to an irritating discharge therefrom, or to the larynx, producing respiratory disturbances, the patients so affected dying with typhous symptoms and œdema of the lungs. Dropsy was observed in fifteen cases, and of these four died. The author considers the dropsy a part of the fever produced by the disturbance of the cutaneous circulation. The scarlet-fever intoxication (as the author terms it) is not dependent on the presence of uræmia, inasmuch as it is often observed when no retention of urea in the blood is suspected.

SCOUTETTEN recommends the inunction of oil in order to prevent the sequelæ of measles and scarlet fever. The method is identical with that for some time followed in Germany.

KÖSTLIN gives an account of an epidemic of measles, and GUNSBURG of another epidemic which prevailed at Breslau. In the latter case the epidemic differed from ordinary rubeola in respect to the character of the eruption, which resembled that described by Veit as "hæmorrhagic measles." Laryngeal complications were frequent, and in some cases actual croupous exudation was observed in the larynx and trachea. When the eruption was severe, diarrhœa was frequently observed about the second day.

VEIT describes a form of measles characterised by the presence of petechial patches instead of an eruption of the normal character, and which the author designates as hæmorrhagic measles. It occurs, according to his experience, chiefly amongst individuals in indigent circumstances. In 160 cases it occurred eleven times. In such cases the fever is of a sthenic rather than of an asthenic character. The course of the disease was in all cases mild and without complications. Cases of acute hæmorrhagic form of measles must not be confounded with those in which petechiæ appear at a later period during convalescence.

TROUSSEAU remarks, that during the eruptive period of measles diarrhœa, occasionally bloody, is not uncommon. The appearance of croupous affections is unfavorable. Capillary bronchitis is almost always fatal when occurring in children under two months. Convulsions, at a later period of the disease and in young children, are of very unfavorable omen.

SCHUTZ reports that in Nagold, in the year 1856, measles, of a very virulent character, carried off 10 per cent. of those attacked. Respiratory complications had a large share in producing the mortality.

MAYR states that erythema nodosum is occasionally observed in infants, but more generally in older children. In its simple form it is chiefly seen on the leg and forearm, appears suddenly, lasts from five to seven days, and is unaccompanied by general disturbance. A hæmorrhagic form is also described.

GINTRAC examines the relations subsisting between varicella, variola, and varioloid. Varicella, he concludes, does not originate from variola, but varicella may arise under the same conditions as variola. He does not think it proved that varicella can produce variola. With respect to the actual relation of the two, variola does not exclude varicella; the one may follow the other in the same person; they have the relation of two independent poisons. Lastly, there is no apparent analogy between variola and varioloid on the one hand, and varicella on the other.

LETOURNEAU believes that the sclerema and œdema of new-born children is a condition depending primarily on congenital weakness, imperfect expansion of the lungs, and defective hæmotosis. It is a slow asphyxia, the body becoming gradually cooled down, and the child remaining in a state of organic torpor until death occurs. To establish his positions, the author adduces histories of seventeen cases.

HUTCHINSON gives a tabulated account of forty-four cases of favus, collected from various sources, the sporules and thalli of a fungus being in all cases present. He believes that the fungus (the *Achorion Schönleinii*) develops itself within the hair-follicles. The disease is very inveterate, occurs only amongst the poorer (*i. e.* uncleanly) classes; it is very rare, occurs for the most part in persons of good health; may be inoculated, but does not spread readily, and the general health is unaffected by it. After remarks on the differential diagnosis, the author states that the only treatment available is the employment of sulphur, creosote, or mercury, combined with epilation of the parts affected.

VII. DYSCRASLÆ; TUMOURS.

Tanner.—A case of Infantile Syphilis. *Obstet. Trans.*, vol. i, p. 132.

O'Donovan.—Case of Infantile Syphilis. *Dublin Quar. Journ.*, May, 1859, 308.

Diday.—A Treatise on Syphilis in New-born Children at the Breast. Translated from the French by G. Whitley, M.D. *New Syd. Soc.*, 1859. pp. 272.

Friedinger, Mayer, und Zeisl.—Die Syphiliden im Kindesalter. [Syphilis in Children.] *Jahrb. f. Kinderheilk.*, 1858, part 1. (*Canst.*, iv, 456.)

Bouchut.—De la fièvre intermittente chez les enfants. *Gaz. des Hôp.*, 1858, No. 56. [Intermittent Fever in Childhood.] (*Canst.*, iv, 459.)

Barbot.—Quelques considérations sur la fièvre typhoïde en général, &c. *Paris*, 1858. (*Canst.*, iv, 459.)

Perrin.—Beobachtungen über der Scrophelkrankheit. *Journ. f. Kinderk.*, 1858, 1, 2. [On Scrofula.] (*Canst.*, iv, 459.)

Lotzbeck.—Die angeborenen Geschwülste der hinteren Kreuzgegend. *München*, 1858. (*Canst.*, iv, 459.)

TANNER relates the case of a child who died suddenly about six weeks after birth, having been just before treated, apparently successfully, for syphilis derived from the parents.

O'DONOVAN relates a case of syphilis in an infant, the parents of which had had no secondary symptoms, but the father had suffered from "gonorrhœa."

The first or ætiological part of the treatise of DIDAY, now translated and published by the New Sydenham Society, is devoted to studying the mechanism of the development of the disease, its different origins, and the respective part played by each of them in its ulterior evolution. In the second or semeiological part, we find a description of the various forms and no less variable progress of the disease. The third part, having reference to prognosis,

treats of the dangers peculiar to syphilis at an early age, of the transmissibility of the lesions which it occasions, and of the mortality which it causes. In the fourth part, the medico-legal bearings of cases of this kind; and in the fifth part, the subject of treatment in all its details are considered.

LOTZBECK gives an elaborate account of the various forms of tumours which are observed in the sacral region in new-born children,

VIII. MALFORMATIONS, ETC., OF THE FŒTUS.

Ehrmann.—Fœtus monstreux (Derodelphe). *Gaz. Méd. de Strasb.*, 1858, No. 4. (Canst., iv, 1.)

Reiner.—Glücklich vorgenommene unblutige Trennung zweier zwischen Sitzknorren und Steiss miteinander verwachsener Kinder. [Successful Separation of Two adherent Fœtus.] *Wiener Wochensch.*, 31—33, 1858. (Canst., iv, 1.)

Luschka.—Ueber ein angebornes Hygroma cysticum perineale mit Fœtus in Fœtu. [Case of Congenital Cystic Hygroma; Fœtus in Fœtû.] *Virchow's Archiv*, xiii, p. 411. (Canst., iv, 1.)

Ienhossek.—Ueber eine Zwillingsbildung der Medulla spinalis. [Double Spinal Cord.] *Wochenbl. d. Zeitsch. d. Wiener Aertz*, 1858, No. 52. (Canst., iv, 1.)

Flogel.—Ueberzählige Hoden. [Supernumerary Testicles.] *Oesterr. Zeitsch. f. prakt. Heilk.*, 39, 1858. (Canst., iv, 1.)

Charcot.—Rupture of the Spleen in a Fœtus. *Gaz. des Hôpt.*, 144, 1858. (Sch., 4, 42.)

Virchow.—Hydrops ascites bei einem neugebornen Kinde. [Ascites in a New-born Child.] *Mon-Sch. f. Geburtsk.*, xi, p. 161. (Sch., 6, 308.)

Smallman.—Cystic Disease of the Liver in a Fœtus. *Lancet*, 1859, ii, 573.

Clay.—On Anasarca of the Fœtus. *Wien. Ztsch.*, N. F., ii, 13, 1859. (Sch., 6, 308.)

Widerhofer.—Ein Fall von Ileus bei einem neugebornen Kinde. [Ileus in a New-born Child.] *Jahrb. f. Kinderk.*, ii, 1, 37. (Sch., 11, 190.)

Billi.—Unusual Twisting of the Cord, and its probable cause. *Ann. Univ.*, Feb., 1859. (Sch., 8, 191.)

Houel.—Mémoire sur les adhérences du placenta ou des enveloppes à certaines parties du corps. [Adhesions of the Placenta or Membranes to certain parts of the Body.] *Gaz. Méd.*, No. 3, 1858. (Canst., iv, 6.)

Goldberg.—Seltene Zwillingsgeburt. [Unusual case of Twins.] *Oesterr. Zeitsch. f. prak. Heilk.*, No. 39, 1858. (Canst., iv, 6.)

Bernard.—Case of Superfoetation. *Dublin Quart. J.*, Feb., 1859, 221.

Moraud.—Recherches sur le cataracte congénitale. Thèse. [On Congenital Cataract.] *Paris*, 1858. (Canst., iv, 6.)

- Meyer.**—Ueber angeborne Enge oder Verschluss der Lungenarterienbahn. [Congenital Stricture or Closure of the Pulmonary Arteries.] Virch. Arch. f. path. Anat. u. Phys., xii, 6, p. 497. (Canst., iv, 6.)
- Dorsch.**—Anomaler Verlauf der Hohlvenen. [Anomalous Course of the Venæ Cavæ.] Aertz. Intell. f. Bay., No. 20, 1858. (Canst., iv, 6.)
- Bochdalek.**—Beschreibung einer sehr merkwürdigen Abweichung der Lungenvenen. [Remarkable Abnormity of the Pulmonary Veins. Prager Viert., iv, 1858, p. 160. (Canst., iv, 6.)
- Jagielski.**—De luxatione femoris congenita. Diss. inaug. [Congenital Luxation of the Hip-joint.] Berol., 1858. (Canst., iv, 6.)
- Luton.**—Observation d'hydrocephale congénitale par épanchement dans les ventricules; trois ponctions successives, &c. [Congenital Hydrocephalus, &c.; Three Successive Tappings. Gaz. Méd., 1858, No. 13. (Canst., iv, 6.)
- Delacouse.**—De l'albinisme chez l'homme de régions équatoriales du nouveau continent. [On Albinism in the Inhabitants of the Equatorial Regions of the New Continent.] Journ. des Con. Méd., No. 20, 1858. (Canst., iv, 6.)
- Delacour.**—Note sur un cas de monstrosité du genre peracéphale. [Monster of the genus "Peracéphale."] Gaz. des Hôp., Oct., 1858. (Canst., iv, 13.)
- MacLachlan.**—Case of an Acranial Fœtus. Glasg. Med. Journ., July, 1859, p. 228.
- R. Uvedale West.**—Description of an Anencephalian Monster. Obstet. Trans., vol. 1, p. 105.
- Martin.**—Amputation spontanée chez le fœtus. [Spontaneous Amputation in the Fœtus.] Gaz. Heb., 22, 1858. (Canst., iv, 13.)
- Gressy.**—Des imperforations et atrésies congénitales de la face. [Imperforations and Congenital Atresia of the Face.] Thèse, Par., 1858. (Canst., iv, 13.)
- Duncan.**—Singular Malformation of the Urinary Organs. Am. Journ. of Med. Science, Oct., 1859, 569.
- Senftleben.**—Angeb. Missbildung der Nieren bei Atresia ani. [Congenital Malformations of the Kidneys in Atresia Ani.] Deutsche Klin., 8, 1858. (Canst., iv, 13.)
- Picardat.**—Recherches sur les anomalies congénitales du canal de l'urèthre. [On the Congenital Anomalies of the Urethra.] Thèse, Par., 1858. (Canst., iv, 13.)
- Godard.**—Etudes sur l'absence congénitale du testicle. [Congenital Absence of the Testicle.] Thèse, Par., 1858. (Canst., iv, 13.)
- Milroy.**—Case of Human Monstrosity. Edinb. Med. Journ., June, 1859, 1098.
- Krieger.**—Ueber atresia ani und uterus bicornis. [On Atresia Ani and Uterus Bicornis.] Mon-Sch. f. Geb., xii, 172. (Sch., 11, 178.)
- Rokitansky.**—Ueber atresie des Uterus und der Vagina bei Duplicität desselben. [On Atresia of the Uterus and Vagina in cases of Duplicity of the same.] Wien. Ztsch. N. F., ii, 33, 1859. (Sch., 11, 180.)
- Friedlander.**—Inversio vaginæ, Afterschluss Kloakenbildung und Hydrorachis bei einem reifgeborenen Knaben. [Inversion of the Vagina, Closure of Anus Cloacal Formation, and Hydrorachis, in a Full-grown Child.] Jahrb. f. Kind., 1858, 1.
- Vines.**—On a Case of Congenital Encephalocele. Lancet, 1859, ii, 410.

- Houel et Arnault.**—Fœtus Pseudencéphalien. [Pseudencephalic Fœtus.] Bull. de l'Acad. de Méd., No. 10, p. 298; and No. 24, p. 1153. (Canst., iv, 21.)
- Behrend.**—Zur Geschichte der Spina bifida, deren Verlauf und Behandlung, nebst Mittheilung einer glücklichen Kur durch Anwendung der Collodium. [The History, Progress, and Treatment of Spina Bifida; Case of Cure by means of Collodium.] Journ. für Kinderkr., 11, 12, 1858. (Sch., 5, 194.)
- Robin.**—Du Spina bifida. [Spina Bifida.] Thèse, *Par.*, 1858. (Canst., iv, 21.)
- Debout.**—Coup d'œil sur l'état de la thérapeutique concernant le spina bifida. [The Therapeutics of Spina Bifida.] Bull. de Thérap., March, 1858. (Canst., iv, 21.)
- Ebra.**—Du traitement du spina bifida par les injections iodées. [Treatment of Spina Bifida by Iodine Injections.] Thèse, *Par.*, 1858. (Canst., iv, 21.)
- Allix.**—Case of Congenital Hydrocephalus, with Spina Bifida. Presse Méd., 31, 1858. (Sch., 1, 66.)
- Messer.**—Description of a Fœtus with Spina Bifida, Umbilical Hernia, and two peculiar Supra-scapular Bones. Edinb. Med. Journ., Sept., 1859, 231.
- Shearer.**—Case of Malformation of the Abdomen in a Child. Ed. Med. Journ., Sept., 1859, 237.
- Sedgwick.**—Fœtus in which the Abdominal Wall was deficient. Obstet. Trans., vol. i, p. 239.
- Widerhofer.**—Hernia diaphragmatica sinistra bei einem Säugling. [Diaphragmatic Hernia in an Infant.] Jahr., f. Kinderh., ii, 1, 39. (Sch., 11, 191.)
- Moeller.**—Fissura sterni congenita. Königsb. Med. Jahrb., i, parts 1 and 2. (Canst., iv, 210.)
- Debout.**—Rapport de la commission chargée d'examiner le mémoire de M. Debout relatif à la hernie ombilicale congénitale. [Report on M. Debout's Memoir on Congenital Umbilical Hernia.] Bull. de l'Acad. de Belgique, 2 sér., i, 4. (Canst., iv, 21.)
- Restin.**—Description d'un cas remarquable d'exstrophie de la vessie. [Extrophia of the Bladder.] An. de la Soc. Méd.-Chir. de Bruges, An. xviii, ser. ii. (Canst., iv, 21.)

EHRMANN describes a monstrous fœtus—monocephalous, with two bodies. The double character was first evident at the base of the skull. The vertebral canal double; two spinal cords; œsophagus single; stomach single and small, giving off a single small intestine; this intestine ended in a pouch, from which were given off two small intestines, each ending in a separate cæcum and large intestine. The sexual and urinary organs double; both females. Respiratory apparatus perfectly double. One heart supplied the two bodies. REINER gives the description of a well-formed child, having an excrescence situated between the ischial tuberosity and sacrum. This excrescence proved on examination to be a fœtus of about three weeks, which had become adherent to the body of the healthy child. A ligature was placed round the pedicle of the excrescence,

and its removal safely accomplished. In LUSCHKA's case of hygroma cysticum perineale, a very large cyst was attached to the lower part of the body, whereby the labour was so protracted that the child died. The pelvis was filled with cysts, varying in size. There were also found within the tumour the remains of a foetus, viz., bones, intestines, &c. The case was one, not of simple hygroma cysticum, but a combination of the same with inclusion of a foetus. LENHOSSEK describes a case in which the medulla spinalis was double in a female foetus, born dead at six months old. In FLÖGEL's case a man labouring under syphilis was found to have a double testicle on each side. The testicles were arranged on each side one above the other, the lower one being on both sides the larger.

In CHARCOT's case a woman was delivered of an eight months' child, which survived its birth half an hour only. The spleen was found ruptured, and blood effused into the abdomen. The rupture appeared to be due to one of two falls which the patient had sustained, the first one month, and the second a fortnight, before delivery.

In a case of congenital ascites related by VIRCHOW, the mother had previously given birth to six children, three of which had died of ascites when young.

In SMALLMAN's case the abdomen was greatly enlarged, and in the centre of the liver was a large cyst, covered, not completely, by skin anteriorly. The child lived ten minutes after birth.

CLAY relates two cases, in each of which the foetus was cedematous and dead. In one case the placenta was soft, thickened, and partly covered with so-called lymph; in the other case the placenta was hypertrophied.

WIDERHOFER records a case of ileus and death in an infant, produced by a cyst in the wall of the lower end of the ileum, so situated as to prevent faecal matters passing into the colon.

BILLI reports the case of a woman who suffered in the eighth month of her pregnancy from lively and painful movements of the foetus, which suddenly and finally ceased after eight days. Delivery took place, after two weeks, of a dead child. The cord was very much twisted and rendered impervious. The cerebellum of the foetus was smaller on one side than on the other. The author supposes that this unequal development of the cerebellum caused the movements of the child, as in animals in which one side of the cerebellum has been removed, and that these rotatory movements,

being constantly in one direction, caused the twisting of the cord.

HOUEL states that there are only two points of the body of the foetus at which adhesions of the placenta or membranes are found to exist, viz., the head and the abdomen; of these, the former are by far the most common. Prolapsus of the intestines is always noticed in conjunction with these adhesions, the cause of which the author believes to be the shortness of the umbilical cord, and the consequent constrained position of the foetus.

MEYER believes that when narrowing or obliteration of the pulmonary arteries coexist with a ventricular communication, the former is a cause of the latter; and that the deviations in respect to the mode of origin of the aorta, the foramen ovale, &c., are dependent on the same circumstance. DORSCH describes a case in which the inferior vena cava passed through the diaphragm and upwards on the left side of the aorta, finally crossing over and joining the superior vena cava. BOCHDALEK gives the particulars of a very interesting and rare variation in the arrangement of the pulmonary veins and other vessels of the heart in a child, who, nevertheless, lived four days. LUTON relates a case of congenital hydrocephalus which was punctured three times. The two ventricles were found on the death of the child to be very largely distended with serum.

DELACOUSE believes that the albinos of the equatorial region of the New World are individuals in whom the scrofulous or lymphatic diathesis exists. There is a grade intermediate between the albinos and normal individuals, viz., *peritos*—individuals whose skin exhibits patches of colour, giving it a mottled aspect. Both varieties are of weak constitution. The albinos are not capable of propagation.

In DELACOUR's case, the lower part of the body was normal, but terminated above the umbilicus. There were only five dorsal vertebræ and five ribs; the liver large; the kidneys, pancreas, heart, aorta, umbilical arteries, internal genitals, wanting. The foetus thus formed lived till the fifth month. In MACLACHLAN's case, the cranium was almost entirely absent. The case related by WEST was that of a foetus in which the brain and the superior part of the cranium were wanting.

MARTIN relates a case in which a child was born with the left arm wanting. The placenta and the spontaneously amputated

member were expelled after the child. The mother had a severe fall eight weeks before the labour began, to which the amputation is attributed.

GRESSY's memoir consists of an analysis of seventy-six observations respecting imperforations, &c., of the face.

DUNCAN relates, that in an infant which died three days after birth, there the bladder, vagina, and rectum, opened in a single cavity; all communicating externally by a single duct, not more than two lines in diameter.

SENFLEBEN remarks on the frequency with which atresia ani and malformations of the kidneys and internal organs are associated, and he believes that the mortality following operations for atresia ani is attributable to this. Two cases are related in which atresia ani and defective formation of the kidney coexisted.

PICARDAT states that complete absence of the urethra is more common in women than men; the urine in such cases escapes at the umbilicus. Hypospadias, of which there are three varieties, is witnessed in the female as well as in the male sex. The deviations in the form and direction of the urethra, the double urethra, &c., are next described. GODARD describes the various malformations, &c., of the testicle.

In MILROY's case the foetus was born at about the eighth month. The head was disproportionately large; there was no anus, no trace of the generative organs. A caudal-like appendage was situated over what corresponded to the sacrum. There was only one lower extremity. According to Geoffroy St. Hilaire's arrangement, the foetus belonged to the family "Syméliens."

The uterus bicornis is produced, according to KRIEGER, in consequence of persistence of that connexion between the allantois and the rectum which subsists at an early period; the fundus of the uterus does not then become developed. The relation of atresia ani to the double conditions of the uterus is minutely analysed. Atresia ani may occur without partial or entire duplicity of the internal sexual organs, and *vice versâ*. ROKITANSKY relates two cases, in one of which the uterus bicornis was present, but only one of these divisions opened into the vagina, the other being closed. In the other case one of the divisions opened into a rudimentary vagina, which terminated in a blind extremity below. These cases have a practical interest in relation to the diagnosis of retention of the menses.

In VINE's case of encephalocele, the tumour measured nine inches round, and the greater part of the contents consisted of cerebellum. The patient lived five weeks. The foetus described by HOUEL and ARNAULT was seven months old, and presented several defects of development, the greater part of the cranial vault being wanting, the upper lip fissured, the fissure extending through the nose, the bones of which were absent, the eyes unequally developed, the ring and middle finger of the right side had but one phalanx, on the other side the little finger was provided with only one phalanx, the right leg fractured, the skin unbroken.

BEHREND states that spina bifida most frequently affects the lumbar region or the junction of this with the dorsal, more rarely the sacral region, still more rarely the cervical, but most rarely the inferior part of the sacral region. Generally the size of the external tumour is proportionate to the extent of the osseous defect, but not always. According to Chaussier, it occurs in the proportion of one in a thousand cases. The number of vertebræ affected varies; even the whole canal may be affected. It is often fatal soon after birth, and more quickly if seated high up. If life continue, the child is weak and thin, often paraplegic, and affected with involuntary micturition and defæcation, club-foot, &c. The rupture is generally gradual, preceded by inflammatory attacks and convulsions. Life is rarely prolonged over the third year, but cases are on record of life continuing to ten, twenty, and even fifty years. An operation should only be attempted, when the child is otherwise healthy, the tumour pedunculated and single, the integument covering it not ulcerated, not painful on pressure or on being moved, and fluctuation is distinct. Of all the various proposed operations, simple compression, with or without puncture, appears the best. In the case of a child seven weeks old, who had a spina bifida over the last lumbar vertebra, the tumour was painted with a mixture of castor oil and collodium, and when it had become hard, a wadding compress was applied. The next day the application was renewed, the proportion of collodium being increased. Calomel was now given night and morning, the head being hot and the child restless. The tumour quickly diminished in size, and after a few days was no longer visible. The cure was complete. DEBOUT gives the particulars of several cases in which iodine injections have been used by various surgeons, in the first instance by Brainard. Of eleven cases, eight were cured. The results appeared to show that the

injection of the tincture of iodine, when in the proportion of a third, is at all events not an injurious operation. It is recommended that the injection be made by a very small canula; that the injection be at first of very slight strength, gradually to be increased, the object being to excite a slow process of inflammation only in the cyst. The cases in which the tumour is pedunculated are the most favorable. Compression forms a subsequent part of the treatment. In ALLIX's case, spina bifida, affecting nearly the whole canal, but during life apparently limited to the lumbar region, was associated with hydrocephalus. In MESSER's case the spina bifida was associated with umbilical hernia and two peculiar supra-scapular bodies.

In two cases related respectively by SHEARER and SEDGWICK, the anterior abdominal wall was deficient. WIDERHOFER relates the case of an infant who lived only two days. On examination, the left side of the thorax was almost filled by intestines, an opening existing in the diaphragm.

REPORT
ON
LEGAL MEDICINE, PUBLIC HYGIENE,
AND
DIETETICS.

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MANUALS AND GENERAL TREATISES.

- Casper.**—Practical Manual of Forensic Medicine, based upon original experience. Thanatological part. With an atlas and nine coloured plates. 2d edition.
——— Biological part. *Berlin*, 1858.
- Wald.**—Forensic Medicine. A Manual for Medical Jurists, based upon A. S. Taylor's 'Medical Jurisprudence.' Vols. i and ii. *Leipzig*, 1858.
- Nusser.**—Medicine of the Present Day, in its relations to the Administration of Justice. (Oesterr., 4, 50.)
- Albert.**—A Defence against the Reproaches which Lawyers make to Forensic Physicians. (Henke, 38, 3.)
On the Definition of Mutilation. (Friedreich, 9, 3.)
- Buchner.**—What Injury is immediately Fatal? and what Injury is Fatal by an intermediate Cause, put into activity by the Lesion itself? (Henke, 1858, 47, Supplement.)
- Hofmann.**—Reply to the Question of Buchner, with special reference to Buchner's Reply. (Ib., 38, 3.)
- Boecker.**—Inability to Work; Serious Injury, threatening Life. (Deutsche, 12, 2.)
On Matrimony and Divorce. (Friedreich, 9, 6.)
- Jessen.**—Mental Diseases, considered as Reasons for Divorce. (Ib., 9, 4.)

THE handbook of CASPER is avowedly based upon original researches and experiences; which the author, as the principal member of a scientific commission, that in Prussia, has finally to decide all medico-legal matters, has had the best opportunities for

collecting. The commission just mentioned is called "The Scientific Deputation for Medical Affairs," and stands in connection with the Ministry of Justice and the Interior. The opinions and reports delivered by this commission are bureaucratically styled "super-arbitria." Of such superarbitria most of Casper's cases were the subjects.

Of the first, or thanatological part of Casper's work, we have simply to record the publication of a second, unchanged edition. The second, or biological part is a new publication. It is divided into a general and a special part. The first chapter of the general part treats of medical jurists, and their position in Prussia and other countries. The second chapter gives useful advice on medico-legal examinations, and introduces, as a new doctrine, the question whether all persons are able to bear imprisonment, be it for debt, or as a punishment for smaller or greater crimes; and whether, if persons are not in a condition to bear it without injury, such imprisonment is justifiable. This doctrine is described as that of the "zweifel-hafte Verhaftungsfähigkeit," a compound word of the bureaucratic genus, in which, we regret to say, this otherwise excellent work, like the majority of German productions on medico-legal science, abounds.

The first section of the special part relates to disputed matters connected with sex; in particular, impotence and defloration. Unnatural modes of satisfying sensual desires occupy the third chapter. The second section treats of disputes about pregnancy, cases in which, according to the author, a medico-legal decision is not very often required. The third section, relates to disputed birth and abortion: the fourth, to injuries not fatal: and the fifth, to disputed bodily diseases. The sixth section treats of disputed mental conditions. This chapter is highly practical, and free from those sophistical and mostly unintelligible definitions and distinctions in which forensic psychology so frequently abounds.

The work of WALD is a free translation of Taylor's 'Medical Jurisprudence,' with additions from the literature of Germany and France. It is interspersed with cases from the practice of the author. Many chapters show much originality.

From a consideration of the great progress which medicine has made of late, NUSSER comes to the conclusion that, in order to ensure progress in forensic medicine, a division of labour in that branch of science is required.

As lawyers now and then reproach medical practitioners for judging forensic cases with exaggerated humanity, ALBERT endeavours to show, by examples, that these reproaches are unfounded.

The article on the definition of "mutilation" advises the legislature to avoid this expression, because it is capable of many interpretations.

BUCHNER comes to the conclusion that those injuries are immediately fatal which do not cause death by an intermediate agency. This negative definition is criticised by HOFMANN, who correctly defines, as immediately fatal, those injuries which, from their nature, are necessarily fatal.

The paper of BÖECKER contains remarks about legal and other definitions of the words forming its title.

The essay in 'Friedreich' relates to diseases which may be considered, or alleged to be, sufficient reasons, either for legally preventing marriage altogether, or for breaking a promise of marriage, or for dissolving marriages already existing. Such diseases are stated to be epilepsy, deaf-dumbness, psychical diseases, female hermaphroditism, narrow vagina, absence of vagina and womb, anomalies in the formation of the pelvis, mole-pregnancy, excessive sexual desire, and excessive age. Of these last two points, the natural legal standard is not indicated.

The debates in the Prussian House of Deputies, relative to a bill on the law of divorce, caused JESSEN to consider the medical grounds upon which a dissolution of marriage might become requisite, particularly in reference to mental disorders. He finds that most practical arguments are against any dissolution in these cases, but brings forward some few reasons for which a dissolution, under certain limited circumstances, might be granted.

SOMATIC INJURIES AND MANSLAUGHTER, INCLUDING INJURIES OF THE HEAD, ABDOMEN, SPINAL MARROW, ETC.

Blümlein.—Can any Legal Conclusion, relative to the intention of any person wounding another, be drawn from the situation and nature of the injury inflicted? (Casper, 13, 1.)

History of Critical Days. (Friedreich, 9, 2.)

On Poisoned Wounds (poisoned arms; gunshot wounds; bites; cadaveric poison). (Ib., 9, 4.)

Eulenburg.—Death by Accident, or Murder by Criminal Neglect. A remarkable Trial by Jury. (Casper, 14, 1.)

Albert.—A Case of Murder of a Mother (matricide). (Henke, 38, 3.)

Death by Inhalation of Sulphuric Ether. (Friedreich, 9, 4.)

Pelikan.—Contributions to Forensic Medicine, Pharmacology, and Pharmacodynamics. Experimental Physics of Gunshot Wounds, in which the missile is supposed to wound by means of compressed air. (pp. 151.)

Mair.—Wounds in general. House-Library of Practical Surgery. *Ansbach*, 1858.

Maschka.—Report on Medico-Juridical Examinations, instituted between May 1st and Aug. 31st, 1857. (Prager, ii, 81.) I. Lesions observed upon living persons, twenty-five in number.

——— Forensic-Medical Communications. (Casper, 13, 2.) Case 2. Ill-treatment of a man suffering from severe disease of the heart. Death after six days, not capable of being brought into immediate connection with the ill-treatment.

——— Forensic Medical Opinions. (Henke, 38, 1.) Alleged ill-treatment of a factory woman, forty-two years of age, who had not menstruated for eight weeks; the hæmorrhage from the womb, and catarrh of the bladder, could not be proved to be direct consequences of the ill-treatment. III. Complicated injuries in consequence of continued brutal ill-treatment; residuary disease of brain and spinal marrow, with loss of speech.

Tardieu.—Medico-legal Report on the Attentat of the 14th of January, 1858. (Ann. d'Hyg., April, 1858.)

Casper.—(Loc. cit., ii). A. Serious injuries.—I. *Mutilation*. Case 102. Bite of finger; amputation. 103. Knocking in the peg of an artificial tooth: does it constitute mutilation? 104. Amputation of the breast: is it mutilation? II. *Loss of speech*. 105. Temporary loss of speech after injuries. 106. Non-development of speech, in consequence of general ill-treatment. III. *Loss of sight*. 107. Loss of both eyes through milk of lime. 108. Loss of an eye by sulphuric acid. 109. Loss of an eye by a knock or puncture with an instrument. 110. Loss of an eye by a missile. 111. Alleged loss of an eye by a strike on the face. 112. Apprehended loss of an eye by strokes of a whip. IV. *Loss of hearing*. 113. Whether a box on the ear has caused loss of hearing upon one ear. 114. The same question, in consequence of two boxes on the ear. 115. The same by a knock with the fist. V. *Loss of virile power*. 116. Strangulation of the penis. 117. Alleged loss of virile power after a kick. B. Less serious injuries.—I. *Considerable impairment of health or the use of limbs*. 118. Multifarious illness, and alleged inability to make a living. 119. Flexion of the knee-joint, and alleged inability to make a living. 120. Alleged considerable disadvantages from extractions of teeth. 121. Fracture after having been thrown out of window. 122. Did the fracture occur before or after the 2d of October? II. *Inability to work continued for some time*. 123. Many cuts and punctured wounds. 124. Cut into the arm by a knife. 125 and 126. Blows on the head; peculiar "inability to work." 127. Blows on the head; alleged tearing out of hair. 128. Blows on the head with a hatchet. 129. Dog-bites. 130. Man-bite of the right thumb. 131. Punctured wound of the back, with dilatation of the wound. 132. Ill-treatment by throwing down. 133. Locking a person to a log of wood by means of a chain. C. Light injuries.—134. Accidental poisoning by caustic ley. 135. Blows by fist and stick. 136. Affusion of cold water; boxes on the ear; nervous fever. 137. Kicks in the abdomen; inflammation of the liver. 138. Kicks;

inguinal hernia. 139. Blows with the handle of a broom; abortion. 140 and 141. Punctured wounds of the chest by means of a knife and poniard. 142. Throw on the chest; peritonitis. 143. Throwing down; peritonitis. 144. Blows with a fist on the head; alleged concussion of brain.

Hafner.—Case of Fracture of the Skull, with Medico-forensic Remarks. (Deutsche 11, 2.)

Kürner.—Some Observations from the Criminal Court. (Würtemb., 28, Nos. 7, and 8.)

Roth.—Fatal Disease of the Brain, caused by Blows of the Hand against the Temples. (Henke, 38, 3.)

——— On the Fatal Consequences of a Box on the Ear. (Ib.)

Maschka.—Contributions from Medico-forensic Practice. (Deutsche, 12, 2.) Fatal injury of the head, very probably accidental. Wounds of the head, in a person with wet clothes; unexpectedly rapid death; necessarily fatal injury. Dead body found suspended by the neck; discovery of fracture of the skull, together with several other injuries, probably caused by violence of a second person; exclusion of suicide.

——— (Henke, 38, 1). Ill-treatment of a Man seventy-four years of age, consisting in blows upon the head; supervening pneumonia; death; no connection traceable.

——— (Casper, 13, 2). Wounds of the Head; unexpected death after some days; copious extravasation of blood in the pericardium; no connection traceable; serious injury. Injuries on the head and thumb of a drunkard; cold and irregular living; tetanus; death; lesion which, from its general nature, is not necessarily fatal.

On the Psychical Consequences of Lesions of the Head. (Friedreich, 9, 2.)

Birkett.—Compound Fracture of the Skull by a Hatchet, with hæmorrhage; removal of loose bone, and exposure of the dura mater; recovery. (Lancet, 1859, 2, 32.)

Maschka.—Inguinal Hernia, alleged to have been caused by an assault; connection not evident; slight injury. (Deutsche, 12, 2.)

Toulmouche.—On Mortal Wounds of the Abdomen from a Medico-legal Point of View. (Ann. d'Hyg., July, 1858, 19.) Rupture of the anterior part of the cæcum by a kick, followed by the escape of fecal matter into the abdominal cavity; rapidly fatal peritonitis. Rupture of the anterior wall of the ileum by a kick upon the abdomen; escape of fecal matter, causing peritonitis and death. Detachment of the jejunum from the mesentery, and rupture of the kidney, by a carriage-wheel passing over the abdomen; rapidly fatal peritonitis. Rupture of the iliacs, with effusion of blood into the abdominal cavity, caused by great compression of the belly, and accompanied by hæmorrhage from the labial artery, and other rapidly fatal injuries. Comminuted fractures of the last seven right ribs, incomplete fracture of the fifth, seventh, and eighth left ribs; rupture and contusion of the liver; rupture of the ureter, of the left renal artery and vein; caused by the passing of a cartwheel over the body; almost immediate death. Comminuted fracture of the pelvis and sacrum, denudation of the cauda equina, and extensive extravasation of blood, caused by the passage of a cart-wheel; almost instantaneous death. The belly ripped open by a knife; prolapsus of the intestines; unmethodical reduction; acute fatal peritonitis. Perforation of the ileum in four places; lesions of branches of the upper mesenteric artery, and of other more considerable arteries; the intestines, which had prolapsed through a cut wound

in the left side of the abdomen, pulled about by the injured man; fatal hæmorrhage.

Nöthling.—Punctured Wound of the Neck. (Baden, 12, 10.)

Schwandner.—A Case of Injury to the Spinal Marrow. (Würtemb., 28, 11.)

Maschka.—(Casper, 13, 2.) A Child, eight days old, dies suddenly; dislocation of the second vertebra of the neck; violent death through the agency of the mother.

——(Deutsche, 12, 2.) Fall upon the Knee, followed by inflammation of the joint; phlegmonous inflammation of the leg; remaining stiffness of the knee; absence of medical treatment in the beginning of the case; scrofulous disposition; serious injury.

Clement-Lacroix.—On Hanging, considered principally from a medico-legal point. Thèse inaug. *Paris*, 1858.

Krügelstein.—Remarks and Opinions on the Doctrine of Priority of Death. (Henke, 38, 1.)

Dommes.—Complete Skeleton of a Man made by Maggots and Insects. (Casper, 13, 1.)

Maschka.—Post-mortem Examinations of Adult Persons. (Prag., ii, 81.)

Death of a Peasant-boy, aged 14 years, twenty-four hours after falling into a pit filled with the boiling-hot refuse of a distillery. The greater part of the surface of the body denuded of epidermis; the cutis dark, reddish-brown, hard, dry, and parchment like; on the places retaining the epidermis numerous blackish ecchymoses and vesicles the size of peas, filled with a clear fluid, and surrounded by a narrow halo, of a rose-red colour, with minute injection of the cutis; blood fluid and dark; brain, with its membranes, hyperæmic; mucous membrane of the trachea dark, blueish-red, in parts finely injected; lungs normal; under the pleura of the right lung, ecchymoses from the size of a hemp-seed to that of a pea.

Hauska.—Medico-forensic Studies. I. Physiognomy of Dead Bodies. (Wiener, 1, 5.)

Huber.—The Medico-legal Relations of Fissures in Bones. (Oesterr., 4, 12.)

Pelikan—Essay on a more precise Definition of Rigor Mortis. (Loc. cit., 191.)

Wallmann.—On Rupture of the Internal and Intermediate Membrane in Arteries. (Oesterr., 4, 6.)

Robin.—Memoir on the Comparison of Hairs, found with their Roots, in the presumed Locality of a Murder, with those of the Victim.

Heller.—On Hæmatine and its Diagnosis. (Wien Aerzt., 1858, 1, 48.)

Bryck.—On Blood-crystals and their Import in Forensic Examinations for Blood. (Wien, 8, 42.)

Coulier.—Note on a Constant Microscopic Character of Blood-stains. (Monit. Hôp., 1858, 1.)

Choulette and Musculus.—New Researches on the Diagnosis of Blood-stains, particularly stains which have been washed. (Conn. Méd., 1858, 19.)

Maschka.—Examination of Blood-like Stains. (Prag., 2, 8.)

Robin.—Memoir on the Medico-legal Comparison of Menstrual Blood-stains and other Blood-stains. (Ann. d'Hyg., Oct., 1858, 20.)

Dannenberg.—Diagnosis of Spermatic Stains in Medico-legal Inquiries. (Hirzel, 10, 4.)

Lassaigue.—Observations on some Reactions which Spermatic Stains have in common with Albuminous and other analogous Stains. (Ann. d'Hyg., Oct. 20, 1858.)

Robin.—Memoir on the Medico-legal Examination of a Blood-stain, which contained human adipose tissue. (Ib.)

Gaultier de Claubry.—On the Appearance of Arms discharged with Gun-cotton, or with Powder made with Ferro-cyanide of Potassium. (Ib., Jan. 17, 1858.)

Busch.—Obstetric Malpraxis? Prussian Superarbitrium. (Casper, 14, 1.)

In a case of gunshot wound reported by him, BLÜMLEIN answers his question in the affirmative.

The article in 'Friedreich' is a historical relation of the doctrines concerning critical days after injuries, which are of no practical value in our present courts of justice.

The article on poisoned wounds is a recasting of known materials.

The case reported by EULENBURG is that of a girl eight years old, who died of suffocation and apoplexy, in consequence of having been obliged to force herself into a cupboard.

The case of death from sulphuric ether is that of an illegitimate child. The father acknowledged its death to have resulted from sulphuric ether, which he himself had made the child inhale. According to the reporter, however, the murder was not proved, because the child might have died from the effects of the vapour which was dispersed in the air of the room.

PELIKAN finds by experiment that a cannon-ball, or other missile, can only cause injury by immediate contact.

TARDIEU enumerates the injuries caused by the *attentat* upon the life of the Emperor Napoleon, and gives an account of their nature, importance, and ultimate results.

MAIR, in the chapter entitled "Wounds in General," makes some remarks on their medico-legal relations.

HAFNER reports the case of a man who, in consequence of blows with a stick, had sustained fractures of the lower angle of the right parietal, and the squamous part of the right temporal bones; which detached seven pieces of bone, and produced four fissures, running in various directions. He died on the third day, probably from an extensive extravasation. He got up during the second night after the injury, for the purpose of passing urine.

The case reported by KÜRNER is that of a fatal fracture of the skull, in which the injury extended to the base of the cranium. A wound of one of the meningeal arteries caused an enormous extravasation.

The first case of ROTH is that of a girl, æt. 11, who died on the 21st of November, after having received a box on the ear early in

September. The post-mortem examination revealed chronic inflammation of all the membranes of the brain, with exudation and ulceration in brain, membranes, and bones. It is sought to connect these lesions with the box on the ear. The second case is that of a girl of the same age, who also received a box on the right ear, and upon whose petral bone, a fungus of the dura mater was discovered at the post-mortem examination.

In the leading article in 'Friedreich' it is maintained, that all injuries of the head are capable of producing psychical anomalies; and that in some cases these anomalies appear a long time after the injury.

The case of BIRKETT refers to a woman, æt. 46, who had been attacked by her husband with a hatchet, whilst she was asleep, her head being on a pillow. There were three scalp wounds, and certain evidence of a fracture. On the eighth day symptoms of compression set in, which necessitated the removal of two large pieces of bone, leaving the dura mater covered by a thick coagulum. There was repeated hæmorrhage. In the course of the case some further pieces of bone came away. But granulations springing up from the sides of the wound, it became ultimately cicatrized. The woman, who had been admitted on July 25th, 1858, left Guy's Hospital in March, 1859, and was then able to give evidence at the police court.

From his series of observations TOULMOUCHE draws some general conclusions.

In the case of NÖTHLING, the left brachial plexus and some lymphatic glands had been injured in the course of a punctured wound, passing between the third and fourth vertebræ of the neck.

SCHWANDNER reports on an injury of the spinal marrow, consequent upon a punctured wound near the third dorsal vertebra: there was paralysis of the right foot, shortness of breath, and involuntary discharge of fæces and urine. An impaired function of the foot remained permanently.

CLEMENT-LACROIX gives a laborious compilation of the physiological, morbid, anatomical, and forensic relations of death by hanging.

KRÜGELSTEIN has furnished a complete account of the materials by which the question of priority of death can be decided.

HAUSKA is of opinion that no conclusion can be drawn from the expression of the face of dead persons, as to any circumstances preceding death.

HUBER points out that the presence of fissures in long bones

does not necessarily involve dislocation of fragments, which may be only a secondary effect of voluntary muscular contraction. He states that most malformations in bones and joints, subsequent to injuries, are due to undiagnosed, and badly treated fissures.

The essay of PELIKAN contains a reconsideration of known facts relative to rigor mortis.

WALLMANN has never observed rupture of the internal and intermediate membranes of the carotids in hanged persons, nor was he able to produce their rupture experimentally; from which experiences he comes to the conclusion that such an occurrence must be very rare.

According to HELLER, hæmatine is best extracted from blood by sulphuric acid and alcohol. After neutralization of the acid, the alcoholic extract is evaporated. The watery solution of the residue is mixed with an equal volume of healthy urine, the mixture heated to boiling in a test-tube, and concentrated liquor potassæ then added. It thereby becomes of a green colour, and a blood-red precipitate of earthy phosphates forms, which under the microscope appears yellow and amorphous. If the mixture is afterwards shaken with air and allowed to stand, the hæmatine-phosphates begin to discolour from above downwards, and the green colour of the fluid gradually fades.

Of all tests for blood, BRYCK believes the production of the characteristic crystals to be the best. Dried blood is soaked in water, and afterwards treated with glacial acetic acid. In this way, blood on linen, wood, metal, clay, and lime, can be recognised. If the blood is dried in substance, it may be scraped off the surface on which it is found. The powder is placed upon a slip of glass, ground down with a glass rod, and covered with a piece of thin glass. One or more drops of glacial acetic acid are next brought in contact with the powder, and the preparation is then gently dried on a sand-bath. When all the acid is evaporated, the preparation is allowed to cool, washed cautiously with a little water, and submitted to microscopic examination. The rhombic, brown-red crystals of hæmine, discovered by Teichmann, are evidence of the presence of blood. Bryck adverts also to some modifications of the test, and to the so-called polychroic test, viz., the changes of colour which residues of blood undergo by the alternate action of glacial acetic acid, caustic potassa, and concentrated sulphuric acid.

COULIER believes that the colourless blood-corpuscles can be easily discovered in blood-stains, and that they are important diagnostic elements of blood.

CHOULETTE and MUSCULUS arrive at the following conclusions. Blood-stains, even very old ones, if they have never been washed, always leave a sufficient amount of soluble matters to give characteristic chemical reactions. But when washed, their analysis by ordinary means is impossible. Water containing one tenth of carbonate of potash makes all blood-stains disappear, fresh or old, washed or unwashed, and precludes all further analysis. Hypochlorous acid acting upon blood-stains for two or three minutes gives them a brown colour, which is very decided upon linen, for example : continued action of the acid, however, destroys all colour and evidence of blood.

ROBIN states that menstrual differs from other blood, by the admixture of epithelial cells and mucus-globules, which are discoverable under the microscope.

DANNENBERG states that solutions of spermatic stains do not coagulate on boiling. He has observed the crystals, described by Rheinsch as forming on a microscopic slide when the fluid is allowed to evaporate. Some appear to be chloride of sodium : two other modifications, square plates and radiating needles, he could not identify.

LASSAIGNE has enumerated a series of chemical reactions which serve to distinguish seminal from other albuminous stains.

In a case of murder, ROBIN ascertained the existence of some adipose tissue in blood, and established its diagnosis from the fat of sheep or cows.

GAULTIER DE CLAUBRY describes the appearance of guns, after discharge, when they have been loaded with gun-cotton, or with a powder prepared from sugar, chlorate of potash, and ferro cyanide of potassium.

In the case of BUSCH, a midwife and an accoucheur were accused of malpraxis. The membranes had been ruptured too early, and the forceps used before sufficient dilatation, and without effect. No subsequent assistance was afforded, and the woman was left to die of hæmorrhage, without being delivered.

III. POISONS AND POISONING.

A. *Diseases simulating Poisoning.*

On Apparent Poisoning. (Friedreich, 9, 2.)

In this article, it is assumed that symptoms simulating extraneous poisoning may be produced by spontaneous generation of organic poison in the human body during life, by idiosyncrasy, and by natural diseases having symptoms analogous to those produced by poisons.

B. *Alleged Poisoning, with poison not identified.*

(Pharm., Dec., 341.)

At the Central Criminal Court, on October 27th, 1859, G. F. Rogers was indicted for the wilful murder of Z. Wright, a female, with whom he had cohabited, and who died about a week after her confinement. The scientific evidence of Letheby went to show the absence of mineral poison; but from a quantity of treacle-like fluid he obtained about a drop of an oily body, which was very acrid, and on application to his lip produced blisters: some of the same description of oily matter was found in the vomit and in the contents of the stomach. The oily matter was not from cantharides, as he had once supposed. A guinea pig was killed by some of it, and the same substance was again extracted from the guinea pig, and then killed several sparrows. Letheby, together with Baker and Garrod, were of opinion that death in this case did not arise from any natural disease, but from the administration of some foreign irritant. For the defence it was urged, that as the real nature of the acrid matter discovered in the stomach could not be determined by chemical experiment, it might have been generated by disease. The jury returned a verdict of *Not guilty*. (See remarks upon this case in a leader of 'Medical Times,' November 5th, p. 460.)

C. *Disproved allegations of Poisoning.*

On Poisoning by Cigars. (Friedreich, 9, 3.)

In relation to a case which occurred in Italy, and is reported in the 'Gaz. di Tribunali,' BUNSEN made some experiments, as

the result of which he affirms, that the possibility of a person being poisoned by cigars, impregnated with as much arsenic as they will bear without presenting a spoiled appearance, cannot be denied; and that the smoking of one such cigar introduces a notable quantity of poison into the mouth; but that it is unreasonable to suppose that any sane person, whether with a view to enjoyment or from courtesy to another, should take so many whiffs of a cigar so poisoned, as to produce a fatal result; for the taste of such cigar-smoke is horrible beyond description.

D. *Special Poisons, in alphabetical order.*

I. *Aconite.*

Case of Death from Aconite. (Lancet, i, 46.)

Suicide by Aconite Root. (Lancet, ii, 561.)

In January, 1859, Mr. Alfred Dowsom, surgeon, died at Norwich. He had misread the labels on the bottles, and taken as a stomachic, a dose from what he believed to be Tra. Aurant., but what was really marked Tra. Aconit. Shortly afterwards the usual symptoms of poisoning by aconite commenced, and terminated fatally, in spite of the most prompt and efficient medical assistance.

A gardener had dug up some aconite root, and dried it. One evening he purposely ate some of it. Three hours afterwards he called in some neighbours, and complained of most severe pain in the stomach. He had vomiting and purging, was occasionally very dizzy, and lost consciousness for a moment, but at other times was sensible. He was admitted into St. Mary's Hospital, under the care of Dr. Alderson, five hours after eating the poison. He was in a state of collapse, and notwithstanding antidotes, died twenty minutes after admission.

2. *Alcohol.*

Poisoning by Brandy. (Guy's, 131.)

A vagrant, æt. 27, saw a bottle, containing about a gallon of brandy, fall from another man's shoulder, and the contents run into

a gutter. He stooped down and drank his fill, when, on again attempting to rise, he staggered and became totally intoxicated. At the police-station, the stomach-pump and emetics were administered. Continuing insensible, he was brought into Guy's Hospital. He was collapsed, cold, and unable to swallow. He lived twenty-two hours after his debauch, and died with dilated pupils and slow respiration. The post-mortem examination showed intense congestion of all the organs, particularly of the lungs and brain.

3. *Antimony.*

Lassaigue.—Diagnosis of Antimony in the Dead Body, after Poisoning. (Ann. d'Hyg., 11, 192.)

LASSAIGNE, from experiments made in conjunction with Lorain, has come to the conclusion that antimony cannot always be discovered by Marsh's method for arsenic. Of all the organs of an individual who had been poisoned by repeated doses of antimony, the liver alone yielded faint traces of antimony with Marsh's apparatus. But when the organs were incinerated, and the carbon and ashes extracted with nitric and hydrochloric acids, this extract yielded an orange precipitate with sulphuretted hydrogen. In this way the liver, spleen, and kidneys yielded considerable amounts of antimony (liver = $1\frac{1}{2}$ grains of tartar emetic); the stomach and intestinal canal gave traces.

4. *Arsenic.*

Huber.—History of a Case of Poisoning, in which the poison could not be detected. (Oesterr., 4, 28.)

Christison.—On the Quantity of Poison which has been found in the Stomach, in Murders by Poisoning with Arsenic. (Edinb., Dec., 1857.)

Blondlot.—Analyses for Arsenic by Marsh's Method. (Acad. Méd., Dec. 4, 1857.)

Odling.—On the Failure of Marsh's Process for the Detection of Arsenic. (Guy's, 1857, 367.)

Schaeffer.—Detection of Poisoning by Arsenic in a Burnt Body. (Casper, 14, 1.)

Orfila.—Poisoning by Arsenious Acid. Medico-legal Researches. (Gaz. Hôp., 1857, No. 139.)

The Bradford Poisoning Cases. (Pharm., Jan. 1, 390.)

Trial of Dr. King (America) for the Murder of his Wife. (Edinb., 81.)

Rose (H. Cooper.)—Case of Poisoning by the Arsenite of Copper in an Infant. (Lancet, 1, 237.)

Abegg.—Case of Poisoning by Arsenic and Strychnia. (Schmidt, 6, 292.)

Trial of Dr. Smethurst for the Murder by Poison of Isabella Banks. (Central Crim. Court. Short-hand Report.)

HUBER reports the case of a woman, forty years old, who died under symptoms of arsenical poisoning. The probability was strengthened by the result of the post-mortem examination, but no poison could be discovered in the body by chemical analysis.

CHRISTISON records a number of murders by arsenic, in which the doses of poison were enormous, and in which large residues could be chemically discovered.

BLONDIOT comes to the conclusion, at which most people had previously arrived, that the process of Danger and Flandin, as preliminary to that of Marsh, may give rise to considerable losses of arsenic, to prevent which he gives a long series of precautions.

From several analyses of soil containing arsenic, of grass grown on arsenical soil, and of animal matter mixed with arsenic, ODLING comes to the conclusion that Marsh's process cannot be relied upon to detect minute quantities of arsenic in the presence of organic matter; that is, under conditions in which arsenic most frequently has to be detected, and in which it can be most satisfactorily detected by Reinsch's process. The plan now adopted by Odling is the same as that recommended in 1858 by Rose, of Berlin. The organic matter to be analysed is dissolved in dilute, warm, hydrochloric acid, and the solution distilled nearly to dryness. The residue is then mixed with some fresh concentrated hydrochloric acid, and again distilled with caution, to avoid the effects of a momentary frothing. The residue is free from arsenic, which has all passed into the distillates, in which it can be recognised by Marsh's, Reinsch's, or the sulphuretted hydrogen, and subsequent other tests. Arsenic may also be separated, by distillation with hydrochloric acid, from certain metallic salts which, according to the author, interfere with Marsh's reaction.

The article by SCHAEFFER refers to a woman, æt. 40, whose body had been found very much burnt externally. In the tolerably well-preserved gastro-intestinal canal, there was evidence of strong inflammation. Arsenic was detected in the canal, and also in some vomited matters.

ORFILA repeats that the spots and rings, obtained by the various modifications of Marsh's method, possess the same properties, and consist alike of metallic arsenic.

At the winter assizes, Northern Circuit, Charles Hodgson, druggist, was indicted for manslaughter by negligently selling white arsenic, instead of "terra alba," or "daff," *Anglice* plaster of Paris.

The poison was manufactured into lozenges. The jury acquitted the prisoner, by direction of the judge, as there had been no criminal negligence of the druggist, but an ignorant mistake of his boy only, who had been duly cautioned. At the date of the trial, December 21st, 1858, this sad mistake had resulted in the death of twenty-one persons.

In America, a Dr. King, having had adulterous intercourse with an unmarried young woman, murdered his lawful wife and mother of his child, by administering to her repeated large doses of white arsenic, of which, after death, as much as eleven grains were found in the stomach by Professor Croft, of Toronto, to whom the intestines had been transmitted for analysis. King was condemned and executed.

ROSE reports the case of an infant nine months old, who after sucking a green cake of colour from a child's paint-box, was taken severely ill, but under treatment recovered. The paint was arsenite of copper.

ABEGG observed a case of what appeared to be poisoning by strychnia. The man died, notwithstanding medical aid. After death large quantities of arsenic were found in the stomach, and absorbed strychnia in the tissues. The suicide had taken arsenic first, and hastened his death by a subsequent dose of strychnia.

At the Central Criminal Court, Dr. Smethurst, a married man, was arraigned for the murder, by poison, of Isabella Banks, a lady with whom, after a sham marriage, he had cohabited. The practitioners who had attended the deceased during life, as also the gentlemen who had performed the post-mortem examination, and the medico-legal chemists retained by the prosecution, by whom arsenic had been detected in one evacuation, and small quantities of antimony in portions of the intestines, contended that the deceased had died from repeated doses of irritant poison. The defence urged, on the other hand, the probability of natural disease, complicated by pregnancy, which the medical attendants of the deceased had not diagnosed, together with the absence of several leading features of arsenical and antimonial poisoning; and accounted for the minute portions of antimony found in the body, by suggesting that it might have been contained in the gray powder or trisnitrate of bismuth, which the deceased had taken as medicines. The arsenic in the evacuation they also contended might have been de-

rived, if not from the copper gauze used in the analysis, from one or other of the drugs above mentioned. The jury returned a verdict of guilty, and the prisoner was condemned to death. A considerable portion of the press was opposed to the verdict, and the Home Secretary, after hearing all appeals, granted a respite. The whole of the evidence was submitted to Sir Benjamin Brodie, who decided, that although the case was full of suspicion against Smethurst, yet there was not complete and satisfactory evidence of his guilt. In consequence of this opinion, a free pardon was granted to the convict by the Queen. In the course of the analyses for the prosecution an error occurred. Owing to the use of copper gauze contaminated with arsenic, a solution of chlorate of potash, found in the prisoner's possession, was alleged to contain arsenic. The mistake was discovered before the trial.

5. *Atropine.*

Holthouse.—Case of Poisoning by Atropine. (Med. Times, 2, 601.)

Five Cases of Poisoning by Extract of Belladonna. (Lancet, 2, 560.)

Seaton.—Poisoning by Belladonna. (Med. Times, 2, 551.)

Leistner.—Poisoning by Hyoscyamus and Stramonium Seeds. (Casper, 14, 2.)

HOLTHOUSE gives the details of a case of poisoning by atropine in a child three years and eight months old. The dose was from a drachm and a half to two drachms of a solution containing two grains of atropine in an ounce of water ; so that the child, who got at the bottle accidentally, took less than half a grain of atropine. The child, when first observed, was strange, irritable and excited, but unconscious, with its face in maniacal distortion. The pupils were fully dilated. Sulphate of zinc and mustard and water were given, but vomiting did not take place till three quarters of an hour afterwards. Some of the vomited fluid entered the author's eye, and, within an hour, fully dilated the pupil. Brandy and water, ether, and ammonia were now given promiscuously every quarter of an hour, but the attempts to make the child swallow almost suffocated it. The child was insensible till 1 o'clock p.m., or till four hours after the commencement of symptoms; the pupils were widely dilated and immoveable, the eyes open, and the lids not affected by passing the finger in front of them; there was occasional jactitation; the skin was pungently hot and dry, and covered with a scarlatina-like rash, which the child was frequently scratching;

the pulse was 170, and somewhat feeble. After that the child gradually recovered, under symptoms exactly like those of delirium tremens. He vomited twice in the course of the afternoon, and had two evacuations of the bowels after an enema of two drachms of turpentine with two drachms of castor oil in six ounces of gruel. More evacuations were produced by jalap, calomel, saline mixture, &c., during the night. He also passed urine. About midnight the little fellow was out of danger, but the pupils remained dilated for nearly a week. The excretions and vomited matters were analysed by Dr. Marcet, who found traces of atropine in each.

Some cases of poisoning by extract of belladonna occurred in the Charing Cross Hospital, under the care of Dr. GOLDING. These, and one occurring in the Middlesex Hospital, were the most severe out of sixteen cases which occurred to some little boys who had partaken of extract of belladonna which they had pilfered from Covent Garden Market. In all cases there was delirium, in none coma; dysphagia in few, cutaneous eruption in one. In the first two cases the urinary organs were affected, little or no urine being passed, even with the catheter. The pupils were remarkably dilated, but in two cases, one being the severest of all, the pupil of one eye was described as "partially contracted." The stomach-pump, emetics, and cutaneous stimulants were employed: all the cases recovered. The dose of the extract actually swallowed could in no case be ascertained, but in the majority it must have been small, as out of sixteen who partook of the poison, only five sought hospital relief; the extract had been taken mixed with water.

SEATON reports ten cases of poisoning by belladonna berries, one only, in a scrofulous subject, being fatal. There was dryness of mouth and throat, dilatation of pupils, and subsequent delirium. Emetics were given. The delirium was successfully treated by tincture of opium, which made the patients sleep. There were no cutaneous symptoms.

In the case reported by LEISTNER, a man, seventy years of age, had been feloniously poisoned by seeds of *datura* and *hyoscyamus*. Nine days after death the body was exhumed, and in the intestinal canal were found fifty-four grains of *datura*, and five grains of *hyoscyamus* seeds, which were identified by microscopical examination. Death had ensued twelve hours after the administration, under symptoms characteristic of these poisons.

6. *Barium, chloride of.*

Walsh.—Report of a Case of Poisoning by Chloride of Barium. (Lancet, 1, 211.)

A healthy young woman, twenty-two years of age, took less than a teaspoonful (not exceeding one drachm) of chloride of barium, mistaking it for Epsom salts. Half an hour afterwards she had severe vomiting and purging. An hour later, her face was pale and anxious, the eyes deeply sunken, surface of the body cold, heart feeble and irregular. There was paralysis of the voluntary muscles, but sensation remained intact. Under stimulating treatment, and after administration of a large dose of sulphate of magnesia, she improved. But in the night a relapse took place, the most marked change being a slow and laboured state of the respiration, with copious effusion into the bronchial tubes. Coma, and then convulsions, supervened. She died seventeen hours after having taken the poison.

7. *Bichromate of Potash.*

Pelikan (loc. cit., 35).—On Bichromate of Potash, in relation to Forensic Medicine.

These researches confirm the opinion that the bichromate is a powerful irritant poison: doses of from one to six grains produce irritation, inflammation, and death, like bichloride of mercury or arsenic. The tests for bichromates are given at length.

8. *Chloroform.*

Bain.—Poisoning by Chloroform. (Lancet, 1, 400.)

A woman took about two ounces and a half of chloroform. She was found insensible some hours afterwards. The stomach-pump was applied, and the stomach emptied. After twelve hours of insensibility, she recovered from the narcotism; but the inflammation of the stomach, set up by the irritant action of the chloroform, caused her death on the eighth day after taking the poison, notwithstanding medical treatment. On post-mortem examination, inflammation of the stomach, with ulceration round the cardiac and pyloric orifices, was discovered.

9. *Colchicum*.

Case of Fatal Poisoning by Colchicum Wine. (Pharm., Feb., 438.)

A child, aged nine months, was taken ill with diarrhœa, to relieve which, the mother sent for a pennyworth of antimonial wine. But the shopboy served colchicum wine instead, and of this the child took successively fifteen, twelve, and ten drops. After the discovery of the mistake, by the non-production of vomiting, an emetic was administered. But the child died early on the following morning.

10. *Indian Hemp (Haschisch)*.

Croudare.—Case of Catalepsy from an Overdose of Indian Hemp. (Med. Times, 1, 135.)

Schroff.—Case of Poisoning with Haschisch. (Pharm., Aug., 125; from Dublin Quart. Journ.)

The case by CROUDARE is that of a young Indian, eighteen years of age, who in the morning had been seen smoking bhang, or gunjah, *i. e.* Indian hemp. He was found unconscious. The limbs could be placed in any position, and remained in it until moved again. This lasted for three days. After that he gradually recovered.

SCHROFF reports at great length the symptoms experienced by Heinrich, his assistant, who had taken ten grains of a new description of Indian-hemp extract, called “birmingi,” which had been obtained through an apothecary, Dr. Steege, of Bucharest, and was labelled, besides the name, with “produces laughter, ten grains.” Irritation of the throat, eructation, and slight nausea, followed the chewing of the extract. After two hours he began to talk irrationally. The excitement passed into sadness, anxiety, and a feeling as if of approaching death. Paroxysms of unconsciousness followed. Water had been drunk in large quantities. The flow of ideas was most extraordinary, confirming the opinion that preparations of Indian hemp exceed those of every other known agent in their immediate exciting action upon the imagination. But they seem to be so uncertain in their remedial action, that the physician must, in every instance, use them with great caution.

11. *Hydrochloric Acid.*

Budd.—Case of Poisoning by Hydrochloric Acid, half an ounce proving fatal in eighteen hours. (Lancet, 2, 59.)

A feeble woman, æt. 63, took half an ounce of the acid for the purpose of self-destruction. She vomited, and soon afterwards had an antidote administered to her. Burning pain in the throat and stomach, retching, and collapse were the leading symptoms. She took alkaline earths, but vomited them, together with blood and shreds of mucous membrane. The mouth, pharynx, and epiglottis were found swollen and corroded; and, from the symptoms, it is probable that death was immediately due to suffocation caused by the irritation surrounding the glottis and epiglottis.

12. *Hydrophobia.*

Ragsky.—Analysis of Blood in Hydrophobia. (Clinique Européenne. Lancet, 1, 285.)

Scriven.—On Laryngotomy in Hydrophobia. (Lancet, 1, 409.)

Wright.—Report of a Case of Hydrophobia. (Ib., 532.)

Thamhayn.—On Rabies and Hydrophobia. (Schmidt, 101, 336.)

No conclusion can be drawn from RAGSKY'S analysis.

The cases of hydrophobia in animals are so numerous, that our space will not allow us to record them. They present, moreover, no peculiarities.

SCRIVEN reports at length a case, which, although not referable to a bite of a dog, closely resembled hydrophobia, and was saved from death by prompt laryngotomy with a penknife.

WRIGHT'S case was fatal; the subject a soldier, who had been bitten by a mad dog. It is to be regretted that laryngotomy was not performed in this case.

THAMHAYN gives a very complete résumé of all that is at present known on the subject. The article, being itself a condensed report, admits of no extract.

13. *Mercury.*

Maschka.—Administration of Metallic Mercury in Coffee to a Tuberculous Child; death; no connection traceable. (Casper, 13, 2.)

Prince.—Two Cases of Poisoning by Red Precipitate. (Lancet, 2, 506.)

Lassaigne.—Chemical Observations upon the Organs and Viscera of a Person Poisoned with Corrosive Sublimate. (Ann. d'Hyg., July 19th, 1858.)

Roberts.—Poisoning by Corrosive Sublimate. (Med. Times, 1, 210.)
Suicide by Bichloride of Mercury. (Pharm., July, 43.)

In the first case of PRINCE, a woman took, with suicidal intention, two scruples of the precipitate powder. She complained of pain in the stomach, had an emetic given her, and afterwards a laxative. She rapidly recovered, and but slight salivation resulted.

In the second case, rather over two drachms were taken. Vomiting was early induced: blood was present in the vomited matters and in the ejecta per anum. Effervescent draughts and opium mitigated these symptoms. On the third day most violent salivation ensued, so that the tongue protruded about an inch from the enormously swollen mouth. This state lasted for about a month, in spite of all treatment. The whole of the anterior portion of the mucous membrane of the cheeks, gums, and under surface of the tongue, sloughed away, and four teeth were lost. As the parts healed, the jaws became completely closed, and the tongue adherent to the floor of the mouth and cheeks.

ROBERTS records the case of a man who took about half a drachm of the bichloride. Ten minutes afterwards white of egg was freely administered. Copious vomiting ensued. He passed liquid, dark, and subsequently bloody stools. The mouth, fauces, and œsophagus were corroded, and became very much swollen. His aspect was choleraic, and he had cramps in his legs. During the next ten days there was much purging, ulceration of the mouth, and mercurial fetor. The patient died on the eleventh day after the mistake. Stomach generally inflamed, pulpy and gangrenous at the pyloric end. Œsophagus denuded of its lining membrane. Intestinal canal presented the appearance of intense inflammation passing into gangrene.

A man, æt. 70, was found dead in his counting-house. In his stomach were found large quantities of corrosive sublimate, of which he had no doubt, partaken, with suicidal intention.

14. *Nicotia*.

Melsens.—Note on the Search for Nicotine in Dead Bodies which have been interred for a long time, and after putrefaction of the animal matter. (Acad. Belg., 12, 9.)

Taylor.—On Poisoning by Nicotia, and Detection of the Poison. (Pharm., June, 620.)

Suicide by Nicotia. (Ib., Sept., 195.)

From a series of experiments, MELSENS comes to the following conclusions. Nicotia can be discovered in bodies long after death; it is not changed by slow putrefaction under a limited access of air; the salts of nicotia resist longer than the pure base; but when a body putrefies at a higher temperature, and with free exposure to air—circumstances which favour the volatilization and change of the base—then even the analytical process of Stas gives only negative results.

TAYLOR describes at length the post-mortem appearances of, and the processes adopted by him for discovering nicotia in, the organs of a young man who had destroyed himself by that poison. The nicotia was detected by distilling, with caustic potash, an etherial extract of one-half of the stomach, with a portion of its contents; also by the processes of Orfila and Stas. This last process yielded the best result. Taylor then describes the properties of nicotia, and its effects on animals, illustrated by an experiment upon a rabbit and subsequent analysis. The paper concludes with a review of the experiments and opinions of Claude Bernard upon the same subject. Taylor attributes the speedy action of nicotia to its effecting a rapid deoxidation of the blood, and a stagnation in the over-filled capillaries.

A case of suicide by nicotine occurred in August, 1858, in London. As in former cases, death was very rapid.

15. *Opium.*

Death from Laudanum taken by Mistake. (Pharm., Feb., 436.)

Two Deaths and Two Dangerous Intoxications by Syrup of Poppies and Laudanum respectively. (Ib., Feb., 437, 438.)

Poisoning by Laudanum. (Ib., April, 528.)

Suicide by Laudanum. (Ib., Aug., 150.)

Poisoning by Acetate of Morphia. (Gaz. Hôp., Sept., 13.)

Poisoning by Dover's Powder. (Pharm., Jan., 390.)

The above accidents by laudanum or opium have been caused by mistake, felonious intent, the negligence of druggists, or the quacking of ignorant mothers. They present no peculiar features of interest in a medico-legal point of view.

In the last case, a young druggist took fifteen grains of acetate of morphia wrapped in a wafer, his stomach being full at the time. Narcotism set in, and probably suspended digestion, so that the greater part of the morphia was afterwards rejected through the

agency of an emetic. The patient tasted the morphia in the vomited matters. He perfectly recovered.

A woman was found dead: the verdict of the coroner's jury was "that she took poison (Dover's powder) by mistake, and that she obtained it at some institution or shop, but there was not sufficient evidence to identify the person or persons who supplied her."

16. *Oxalic Acid.*

Rul-Ogez.—Poisoning by Oxalic Acid. (Gaz. Hôp., 1858, 137.)

Webb.—Case of Poisoning by Binoxalate of Potash. (Med. Times, 2, 378.)

A healthy woman, æt. 49, took about half an ounce of oxalic acid, which a druggist had given her instead of cream of tartar. She died, after a quarter of an hour, with pain in the stomach, colic, diarrhœa, vomiting, convulsions, and stertorous breathing.

A man, æt. 40, took by mistake a quarter of a teaspoonful of the binoxalate of potash. Two hours afterwards he was attacked with vomiting, burning in the throat, and heat in the chest and stomach. Afterwards, there were muscular weakness, cramps, and head affection. The vomiting continued for several days, although so small a dose only had been taken.

17. *Phosphorus.*

Casper.—The Chemical Criterion in Cases of Poisoning. Poisoning by Phosphorus. (Superarbitrium, &c.) (Casper, 14, 2.)

Kletzinsky.—On the Analysis for Phosphorus, in its Diagnostic and Forensic Relations. (Oesterr., 4, 16.)

Lassaigne.—Chemical Observations made upon the Occasion of an Attempt at Poisoning by a Preparation containing Phosphorus. (Ann. d'Hyg., April, 1858, 18.)

Birkner.—Some Observations on the Poisoning of Animals with Phosphorus, in relation to recognising it in the dead body. (Casper, 14, 1.)

Lewinsky.—Case of Acute Poisoning by Phosphorus. (Wien Aerzt., 1, 52.)

In a case of poisoning, apparently by phosphorus, this poison could not be found in the body by chemical analysis. Nevertheless, CASPER and his colleagues in the "deputation" assumed that death was due to phosphorus, upon the basis of the symptoms during life, the post-mortem appearances, and certain signs upon the articles of food, of which the deceased had partaken.

KLETZINSKY believes that, in real cases of poisoning by phospho-

rus, some of this poison always remains unchanged, and gives elaborate directions for finding it. Of the three different processes described, two are very troublesome and uncertain, while the third is entirely antiquated.

LASSAIGNE enlarges upon the difficulty of finding phosphorus in organic matters.

BIRKNER shews by experiments, that the process of Lipowitz for discovering phosphorus in organic matters, which is based upon the property of phosphorus to form a peculiar compound with sulphur, is very safe and certain.

In the case of LEWINSKY, the poison (phosphorus) produced no violent symptoms in the digestive organs during life, nor yet any remarkable effects discoverable after death. General decomposition of the blood seemed to be the cause of death.

18. *Picrotoxine.*

Günkel.—Analysis for Picrotoxine in Cases of Poisoning, (Archiv der Pharm., 144, 14.)

GÜNKEL extracts the organic substances with alcohol, after acidulation with tartaric acid. Picrotoxine (and strychnine) pass into solution. From the evaporated extract ether dissolves picrotoxine, while tartrate of strychnine remains undissolved. On evaporation, the ethereal solution deposits picrotoxine, which can be recognised by the usual tests.

19. *Prussic Acid.*

Poisoning by Essential Oil of Almonds. (Pharm., May, 583.)

Two Suicides by Prussic Acid. (Ib., July, 43.)

Death from Prussic Acid. (Ib., Nov., 294.)

Brame.—Case of Death from Prussic Acid; Discovery of the Poison in the body three weeks after death. (Schmidt, 102, 292.)

Hornidge.—Case of Poisoning by Cyanide of Potassium. (Med. Times, 1, 80.)

Schauenstein.—On Poisoning with Cyanide of Potassium. (Wien. Aerzt., 2, 1.)

In the first of the above cases, a child died after a dose of essential oil of bitter almonds, sold instead of oil of sweet almonds, by a druggist's assistant.

In the case of death from prussic acid, the jury found that the deceased died from the effects of an over-dose of prussic acid, taken to relieve himself from pain.

BRAME found prussic acid, three weeks after death, in the stomach of a young man who had killed himself with it. The contents of the stomach did not smell of prussic acid. The details of the analysis leave many desiderata.

HORNIDGE describes the post-mortem appearances and analysis of the contents of the stomach of a man, who had destroyed himself by taking about a drachm of cyanide of potassium. Vomiting had taken place. The mucous membrane of the stomach was intensely congested.

SCHAUENSTEIN furnishes notes on five cases, in which cyanide of potassium produced almost immediate death with tetanic symptoms, which appeared with apoplectic alacrity.

20. *Soap-lees.*

Poisoning by Soap-lees. (Guy's, 133.)

A child, æt. 1½ year, had drunk about a mouthful of soap-lees from a cup. The alkali had the greatest effect upon the lower part of the œsophagus. The child died after eleven hours. The post-mortem appearances are minutely described.

21. *Strychnia.*

Bennett.—Poisoning by Strychnia; Recovery. (Lancet, 2, 434.)

Pindell.—On the Prevention of Strychnine—Poisoning by Fat. (Wittstein. Edinb., Jan., 667.)

Smith.—Case of Recovery from Poisoning by Strychnia. (Edinb., Dec., 508.)

Simon.—Case of Poisoning by Strychnia. (Lancet, 2, 140.)

——— Suicide by Strychnia. (Pharm., Oct., 247.)

A lady took, in despondency, a packet of "Battle's rat poison." BENNETT was called in, who administered emetics, but without effect. On the occurrence of the spasms, he administered tincture of iodine in water. Vomiting afterwards came on. The patient recovered, probably because the dose was small. Bennett believes that the tincture of iodine did act, but how there is no evidence to show. One of the rat powders was analysed, and yielded a grain of strychnia.

PINDELL states, that half a grain of strychnia will kill a dog, but that three grains, mixed with fat, produce no effect. In eleven dogs strychnia alone caused death each time; in nine dogs, who had a

greatly increased dose of the alkaloid mixed with fat, no effect was produced.

A soldier, after a debauch, took a sixpenny packet of "Battle's Lincoln vermin killer." Tetanic spasms came on, and a mustard emetic was given him. Vomiting almost immediately ensued, and was kept up. He was removed to the hospital, where, after a great number of severe spasms and general tetanic fits, he gradually recovered. The packet contained about three grains of strychnia. The account of this case, which occurred at Winchester, was transmitted by the author (SMITH) from India.

The case of poisoning by strychnia occurred to SIMON, of Alker, in Belgium. A child seven years old, to whom santonine had been prescribed, died of strychnia, supplied by a druggist instead of the santonine.

A chemist, who took strychnia for self-destruction, died with the usual tetanic symptoms.

22. *Sulphuric Acid.*

Three Cases of Fatal Poisoning by Sulphuric Acid. (Guy's, 134.)

A man, æt. 56, had drank, by mistake, about a dessert-spoonful of oil of vitriol. The usual antidotal treatment was adopted. The symptoms were mild, but on the fourth day he died unexpectedly. Mouth and œsophagus were of a yellow colour; and the walls of the œsophagus enormously swollen. The stomach contained a yellow fluid; its fundus was in a sloughing condition. The charring of the stomach ended at the pylorus. No poison was discoverable.

The second case exhibited the effects of dilute sulphuric acid, and was fatal in eleven days. The woman, æt. 55, had drunk a wineglassful of dilute vitriol (one acid to four water) upon an empty stomach. She became collapsed, almost pulseless, cold, and unable to swallow the magnesia which was prescribed. Reaction occurred: after two hours she vomited blood and passed blood by the bowels. After manifesting a variety of symptoms she died unexpectedly. The mucous membrane of the stomach was found entirely detached by sloughing.

The third case occurred to a child, æt. 17 months, to whom her mother, in mistake for syrup of buckthorn, administered a tea-

spoonful of oil of vitriol. The mouth and œsophagus were much corroded, and the stomach extremely charred.

The report of these cases winds up with a description of the effects of sulphuric and nitric acids upon the mouth, of each of which lesions a case was observed.

23. *Snake Poisons.*

Weston.—On the Poison of the Common Adder. (*Lancet*, 1, 522.)

The author caught a viper, *coluber berus*, and holding it up by the tail, was instantly bitten. He strangled the bitten finger and sucked the poison from the wound. In about fifteen minutes the finger became swollen and painful; a sense of numbness and rigidity extending up the arm, with giddiness and confusion in the head ensued; violent retching came on, and he staggered home like a drunken man. His mouth and tongue became swollen and protruding. Diarrhœa supervened. Next day erysipelas of the hand and arm showed itself, and spread over the body down to the hips. That subsiding, he got better, when, after a fortnight, numerous abscesses formed on the bitten arm, and had to be opened. He gradually, but perfectly, recovered.

24. *Upas Antiar.*

Kölliker.—On the Nature of the Action of the Upas Antiar. (Würzburg, 8, 3.)]

This poison acts in the same manner, whether introduced by the stomach or a wound. It first causes a loss of the power of voluntary movement, and after a time, the animal (frog) dies without tetanus. The most remarkable symptom consists in the motionless state of the heart. The first effect of the upas on the frog is paralysis of its heart, exactly as Brodie, in 1812, had observed with regard to mammalia.

25. *Urari.*

Kölliker. (*Virchow's Archiv*, x. Edinb., Jan., 602.)

Betzold and Haidenhain. (*Schmidt*, 101, 35.)

Summary of Literature on Urari. (Edinb., Dec., 548.)

Urari has been corrupted by English writers into wourali, by the French into curare. Schomburgh says that the Macusis, who

make it, call it invariably *urari*. (Christison, 'Edinb.,' note, April, 872.)

According to KÖLLIKER, the *urari* causes death by paralysing the nerves of respiration; it destroys the excitability alike of motor and sympathetic, but does not affect the functions of sensory nerves. It does not destroy muscular irritability, or arrest the action of the heart.

Concerning the action of *urari*, the discussion between BETZOLD, HAIDENHAIN, and KÖLLIKER, is of so complicated a nature that, owing to the pressure of space, we are prevented from even noticing its principal points. It has increased in dimensions since the publication in 1859 of an article by Funke.

The periscope in the 'Edinburgh Monthly Journal' gives the history of the poison, its preparation, analysis, and the theories of its action, by BERNARD, KÖLLIKER, and others. Its employment as a remedy in tetanus is extensively discussed. Some information by HAMMOND and MITCHELL relative to the varieties of *urari*—the one called "corroval," the other, less powerful, termed "vao"—is of great importance, as suggesting caution in the application of this agent in the practice of medicine.

26. *Wú-tsau*.

Christison.—On a New Poison from the Interior of China. (Edinb., April, 869.)

This new poison, described in the 'Northern China Journal' of April 4th, 1857, as possessed of marvellous properties, most of them fabulous, was sent to CHRISTISON by McGervan, an American physician residing at Ningpo. It was accompanied by the leaves and roots of the plant, which Christison found to be a species of *Aconitum*, not *A. Napellus* of Europe, nor *A. ferox* of the Himalayas, but a new species. When a piece of the root, the size of a pin's head, is chewed, it produces intensely that strange combination of numbness and tingling which characterises all poisonous species of the known Aconites. The extract sent from China produced precisely the same impression as the plant, from which it had no doubt been made. The *Wú-tsau* is also called *Tsau-wú*.

27. *Zinc.*

Case of Poisoning by Burnett's Solution (Chloride of Zinc). (Guy's, 128.)

Ogle.—Poisoning by Sulphate of Zinc. (Lancet, 2, 210.)

Santesson.—Poisoning by Impure Sulphate of Zinc. (Schmidt, 102, 19.)

The first case proved fatal after the expiration of fourteen weeks. Vomiting had occurred ten minutes after taking the dose of poison (in mistake for gin), and had continued during the whole time, notwithstanding suitable treatment. In the stomach, which was very much contracted, were discovered two perforating ulcers.

The case of **OGLE**, under the title of "Death from slow poisoning," refers to a man who was found dead, with wounds in his throat, which, however, did not account for death. The stomach looked like tripe, and on analysis was found to contain sulphate of zinc. The man had used this salt as a wash for his eyes, and had during several years made frequent attempts at suicide.

SANTESSON'S case is that of a poor, reduced woman, who got a large dose of impure sulphate of zinc instead of Epsom salts. She died after much torture. The case is very complicated, and teaches little. The impurities of the zinc were not further inquired into, and seem to have had no share in the result.

Appendix.

For medico-legal analyses the following statement of **PETTENKOFER**, concerning the solubility in chloroform of the following alkaloids, is of great interest: 100 parts of chloroform dissolve 0.57 of morphia, 31.17 of narcotia, 4.31 of cinchona, 37.47 of quina, 20.19 of strychnia, 56.70 of brucia, 51.19 of atropia, 58.49 of veratria.

IV. SUICIDE.

Several cases of suicide by prussic acid, cyanide of potassium, essential oil of almonds, corrosive sublimate, laudanum, nicotia, strychnia, and oxalic acid, have already been noticed under the head of poisons. To those cases of suicide by poison we must add the following:

Grabbacher.—Fatal Case of Poisoning by Arsenic. (Oesterr., 4, 45.)

In this case the suicide took fifty grains of arsenic.

Paterson.—(7) Cases of Suicidal Poisoning with Arsenic. (Edinb., Nov., 1857.)

Pellischek.—Suicide by Concentrated Sulphuric Acid.

The following cases of what may be called suicide by mechanical means require to be noticed :

Casper.—Murder or Suicide? Superarbitrium, &c. (Casper, 13, 2.)

Linhardt.—Fracture of the Lower Jaw in the Symphysis, by the Explosion of a Pistol charged with Gunpowder, the Muzzle being inserted into the Mouth for the purpose of Suicide. (Oesterr., 4, 43.)

Lederle.—Two Remarkable Cases of Suicide. (Baden, 1858, 11.)

Neudorfer.—Attempt at Suicide under peculiar circumstances. (Oesterr., 4, 24.)

Berg.—On Suicide, &c., in Sweden. (Henke, 47, Supplement.)

The case upon which CASPER reports is a case of true suicide, forensico-medically diagnosed from murder.

LEDERLE reports the case of a man, æt. 69, who hung himself in consequence of long-continued suffering caused by cancer of the pancreas; and the case of a young man, æt. 20, who selected the same mode of self-destruction in consequence of painful dysentery.

The case observed by NEUDÖRFER is that of a man, æt. 75 years, who attempted to destroy himself with his left hand, his right being quite unserviceable. He managed to puncture the abdominal wall and also to cut into the larynx, but did not succeed in producing fatal wounds.

From 1843 to 1851 there occurred, in Sweden, 1308 cases of suicide, or, on an average, 145·3 per annum. But in reality the annual number has been a progressive and not a stationary one.

V. SIMULATED AND CONCEALED DISEASES.

Heller.—On Adulterations of Urine effected by Simulating Persons and Conscripts. (Oesterr., 4, 24 and 27.)

Schneider.—Communications of Medico-forensic Cases. Opinions on Simulated Epilepsy. (Deutsche, 11, 2.)

Zink.—Simulation of Idiocy by a Murderer and Ravisher. (Ib., 12, 2.)

HELLER mentions the following fraudulent admixtures to urine : blood, milk, sputa, cane-sugar, sulphate of indigo, semen lyco-

podii, and fragments of oil silk obtained by rubbing; to each of which he gives a long commentary.

SCHNEIDER, by frequent personal observation, convinced himself that a person accused of many thefts simulated epilepsy.

ZINK reports the case of a young man 17 years old, who was convicted of ravishing and murdering a girl, æt. 9 years. By dexterous simulation, he caused the jury to believe him of unsound mind, although the forensic physicians had given evidence to the contrary.

VI. DOUBTFUL SEX; ILLEGAL AND UNNATURAL COITUS; ILLEGITIMATE PREGNANCY AND PARTURITION.

Canella Constantino.—Medico-legal Question. (Italian, 8, 49.)

Goldberg.—Who's the Father? (Oesterr., 4, 52.)

Maschka.—Two Cases of Stuprum. (Prag. 6.)

Hauska.—On Ravishing and the Attempt at Ravishing. (Wiener, 1857, 49.)

Tardieu.—Medico-legal Studies upon Immoral Assaults (Ann. d'Hyg., July and October, 1857; 15th and 16th Jan., 1858, 18). Indecent assault; negative signs; constitutional leucorrhœa. Ditto, with incomplete rupture of the hymen. Ditto, with simple and very acute inflammation of the vulva and vagina. Ditto upon a child five years of age; considerable disorder; inflammation and blennorrhagic discharge. Ditto on a girl four and a half years old; inflammation of the vulva; discharge from the urethra; gonorrhœal infection. Ditto committed by an old man of seventy upon a child eight years old; violent inflammation of the vulva; gonorrhœal infection. Ditto on little children; inflammation of the vulva; injuries to the sexual organs; injuries to the mouth and lips. Ditto; injuries of the vulva. Repeated assaults by a father upon his child; relaxation of the hymen, admitting, notwithstanding its integrity, complete introduction of the penis. Ditto repeated by a father upon his daughter; incomplete sexual connection, followed by pregnancy. Determination of virginity; malformation of the vagina; deformed vulva. Ditto; partial rupture of hymen by forcible introduction of finger. Ditto and violence committed upon two young children; complete defloration; inflammation of vulva and vagina. Attempted violation; traces of great violence. Ditto; suicide of the victim; traces of violence. Violation and complete defloration of a child twelve years of age. Violation and complete defloration; the signs present after three weeks. Violation; complete defloration, without retraction of the ruptured hymen. Violation; complete defloration; false allegation of magnetic sleep. Violation; complete defloration; the hymen retracted; syphilis communicated. Violation; complete defloration; turning in of the fragments of the hymen. Ditto, with impaired general health. Ditto. Violation, followed by murder, of a woman sixty-eight years of age; deep wounds. Violation, followed by murders. Immoral assaults upon six young girls. Sodomy, of a husband with his wife; characteristic signs; grave disorder. Active and passive sodomy; characteristic signs. Ditto, active. Active and passive sodomy; peculiar shape of

penis. Ditto; peculiar shape of sexual organs. Inveterate habits of active pædarasity; syphilis communicated; pulmonary phthisis. Murder by strangulation, committed by a pædarast.

Elsaesser.—On Premature Births, in their Forensic Relations. (Henke, 14, 1.)

Trentrop.—Birth after Death. (Ib., 13, 1.)

Casper.—(Loc. cit., part ii.) Cases 17, 18, 19, and 20. Whether husband and wife are of an age capable of begetting children? 21. Questionable sterility. 22. Questionable capability to impregnate a woman, on account of juvenile age. 23. Questionable capability to cohabit and impregnate, on account of old age. 24. Questionable ability to cohabit, on account of old age. 25. Questionable potency. 26. A man denies having got his daughter with child, pleading impotence. 27—30. Actions of married women against their husbands for impotence. 31—33. Actions for refused connubial duties. 34 and 35. Alleged impotence, on account of deformed sexual organs. 36 and 37. Alleged impotence, on account of the absence of testicles. 38 and 39. Alleged excessive sexual desire in a man. 40. Alleged inability to cohabit in a woman. 41. Virginity and pregnancy. 42. Alleged violation of pudicity. 43—47. Rape of adult women. 48. Repeated criminal intercourse with a consanguine adult woman. 49. Alleged rape of a woman forty-seven years old. 50. Alleged rape. 51. Violent gradual dilatation of the sexual organs of a child. 52 and 53. Rape before eye-witnesses. 54. How the rape was committed. 55—57. Discovery of spermatozoa. 58—60. Whether and when rape was committed on a former occasion? 61—66. Alleged syphilitic infection as alleged proof of rape. 67—72. Gonorrhœa in different stages as consequence of rape. 73—79. Sodomy. 80. Forced sodomy. 81—86. Irritations from masturbation in boys and girls. 87. Forced sodomy of a boy upon a boy; spermatozoa; puberty? 88. Sodomy diagnosed upon a corpse. 89. Whether the woman F—has borne five or six months ago? 90. How old was the foetus, which was born three weeks ago?

Kesteven.—On the Evidence of Rape on Infants. (Med. Times, 1, 361, 417, 442.)

Wilde.—Observations on Kesteven's paper. (Ib., 1, 518, 544.)

The question, discussed by CANELLA, is answered upon the basis of the opinions of various authors.

In the case related by GOLDBERG, a married lady was confined 278 days after the departure of her husband, who had been suffering from delirium tremens and mental alienation, with great excitement of mind and body; maniacal attacks had alternated with clear intervals. It could not be doubted that he was the father of the child born at due time.

The paper of HAUSKA contains meditations on the definition of rape. The observations of TARDIEU, based upon an immense material, are of a highly practical nature. They open the curtain upon peculiar descriptions of crime, which are not met with so often in other countries as in France, and seem there to be upon the increase. Thus, public seduction of pudicity, practised in public places by men

of old age, appears to be a frequent crime. Immoral assaults upon children, and cases of rape on infants, are increasing at a terrible rate. From 1826 to 1830 there occurred annually about 130 cases of that kind; but from 1830 to 1850 the average of these cases, of which the majority happened at Paris, was 420 per annum. The medical diagnosis of these crimes is minutely described.

ELSAESSER considers premature births, and their relative frequency among married and unmarried women. The latter most frequently bring forth stillborn children; amongst 540 premature extra-matrimonial births, 125, that is, almost one fourth, were of dead children; and of these, two thirds at least had died in the womb before the beginning of labour. The diagnosis of death in the womb from death after birth is elaborately given.

LOESCHER reports the case of a woman who, after having been repeatedly confined before, suddenly died during labour. The child was expelled spontaneously twenty-four hours after death.

A similar case is reported by TRENTROP.

KESTEVEN'S paper is elicited by the case of Amos Greenwood. The introductory remarks are those of caution to the forensic physician, as lesions, similar to those from rape, are sometimes intentionally produced for the purpose of extorting money. In India such cases are frequent. The crime of rape is, according to Chevers, more common in India than in England. Hence our Indian possessions have afforded a more profitable field for observations upon this crime. Crimes of all kinds, and of the deepest dye, are revealed as common practices, in Chevers's work on 'Medical Jurisprudence for India.'

A person named Amos Greenwood was convicted at the Liverpool Assizes, December, 1857, of rape upon an infant. Wilde published animadversions upon the case, believing the verdict to be contrary to evidence. Upon this Kesteven publishes the present paper, in which he discusses the opinions of twelve medical men, which had been given in reply to a series of questions addressed to them by Wilde. The paper concludes with a reprint of a paper by Kinder Wood, from the seventh volume of the 'Med.-Chir. Transactions,' on "Nomæ pudendi."

Upon this WILDE publishes observations, in which he shows that Mary Johnson, the alleged victim of the above charge of manslaughter by rape, died of noma pudendi; that the charge of violence committed by Greenwood, and abandoned by Kesteven,

is unfounded; and consequently that Greenwood is now suffering unjustly the highest penalty which the law has in store for manslaughter, namely, penal servitude for life.

VII. CRIMINAL ABORTION; DOUBTFUL CAUSES OF DEATH OF NEW-BORN CHILDREN; INFANTICIDE.

Duncan.—On a Criticism of William Reid's Trial for Murder and Abortion. (Edinb., Feb., 700.)

Tardieu.—New Medico-legal Studies on Abortion. (Ann. d'Hyg., July 19, 1858.)

Broughton.—Account of a Case in which Impalement of the Uterus occurred in the production of Criminal Abortion. (Transact. of the Bombay Med. and Surg. Soc., 1857.)

Darien.—Are Green Soap and Saffron Abortive Remedies? (Casper, 13, 1.)

Maschka.—(Loc. cit., Prag. 2.) Three Criminal Abortions attempted; the first with some concentrated sulphuric acid, the second with a mixture of decoctions of innocuous or medicinal herbs, the third by rubbing with hog's lard.

Williamson.—The Condition of the Lung not invariably to be depended on as a proof that the Infant has been born alive. (Edinb., Feb., 1858.)

Böhm.—On the Forensic Importance of the Bony Nucleus in the Lower Epiphysis of the Thigh-bone in New-born Children. (Casper, 14, 1.)

Vogler.—The Credit of the Hydrostatic Test for the Lungs again rising. (Preussen, 1, 34.)

Ancelot.—Medico-legal Considerations of the Signs of Life in New-born Infants. (Gaz. Hôp., 1857, No. 147.)

Oscar von Leupoldt.—On the Lung-test. Diss. *Berlin*, 1858.

Zeissing.—Theory: A New-born Child which does not breathe is yet alive. Practice: A New-born Child which does not breathe is not alive. (Casper, 13, 2.)

Löwenhardt.—Critical Communications, &c. *Prenzlau*, 1858. 2. Are Life and Breathing identical in Courts of Law? A Contribution to the Doctrine of Infanticide, p. 121.

Arata.—On Tying the Umbilical Cord in its Medico-legal Relations. Effects of different Ligatures upon the Cord. In what cases can a Ligatured Cord be found without the Ligature? Differences by which a Ligature put on after Death can be distinguished by one applied during Life. (Lo Sperimentale, No. 7. *Juglio*, 1858.)

Löwe.—Opinions on the Age of a Child of A. M. in R. (Casper, 14.)

Behr.—Fatal Lesion occurring in a Child in Utero, by Rupture of a Blood-vessel and Extravasation. (Henke, 47, Supplement.)

Maschka.—(Loc. cit. Henke, 38, 1.) 4. New-born Child, found in a putrid state, probably Stillborn. Alleged Stillborn Child, hid in a heap of branches; signs of the child having breathed; deficient Post-mortem Examination; uncertain opinion.

——— (Prag. 2 and 3.) 5. Post-mortem Examinations of Children. In a case, in which the child had breathed during two or three days, the stomach continued to stand perpendicularly. A child, born dead and putrid, contained lungs

which floated on water; when the vesicles filled with gas were punctured, and the lungs slightly pressed, they sank again. Difference from lungs which have breathed. There were also present in these lungs the peculiar ecchymoses which form in utero.

Maschka.—(Casper, 13, 2.) New-born Child, without signs of having breathed; several marks, which were interpreted as indicating the existence of non-breathing life having been terminated by violent measures.

——— (Deutsche, 12, 2.) New-born Child, found dead in a Dung-pit. Interruption of breathing caused death; cause of interruption not ascertained.

Casper.—(Loc. cit., ii.) Case 91. Disputed Criminal Abortion. 92. Doubtful Abortion after ill-treatment. 93. Whether mechanical attempts at Abortion have been made, and whether St. — has borne repeatedly? 94—96. Three Accusations against Medical Practitioners of Criminal Abortion. 97. Black Soap, Pepper and Savin used as Abortive Remedies. 99. Pulv. Jalap. and Sapo Jalap. used as Abortive Remedies. 100. Redstone and Brandy used as Abortive Remedies. 101. A Midwife accused of repeated Criminal Abortions.

DUNCAN replies to some criticisms which were made by the editor of the 'Medical Times and Gazette,' upon his evidence for the defence in Reid's trial.

TARDIEU gives descriptions of the various modes by which criminal abortion is produced, and the means by which attempts at abortion, and their consequences, may be distinguished from natural disease. Powdered savin can sometimes produce abortion, but it never causes symptoms of poisoning.

BROUGHTON reports a case of criminal abortion, in the fifth month of pregnancy, of a woman fifty years of age. After death, the pointed piece of wood, by which this crime is usually accomplished in India, was found still impaled in the uterus.

DARIEN believes that saffron and green soap can, under certain conditions, have an abortive action.

WILLIAMSON draws the attention of observers to the condition of the umbilical cord in cases of infanticide, as it may so strangle the child's neck as to make respiration impossible.

BÖHM makes some observations on the bony nucleus in the thigh of children, and infers the age of the foetus from its absence or size. His conclusions are based upon 186 observations, of which forty are by himself.

VOGLER gives a case in which the lungs of a child, which had not breathed, floated. It is reported that the midwife "blew air into the child, whose face was still covered by the foetal membranes," so that it is not clear whether she only endeavoured unsuccessfully to do so, or whether she partially succeeded.

ANCELOT observes, that the presence of coagulated blood in the caput succedaneum would only prove that the child was living at the time when the caput was forming.

LEUPOLDT's dissertation once more discusses, and approves of the hydrostatical test for new-born lungs.

The pages of ZEISSING defend the proposition, that a child which has not breathed shall be considered as not having lived.

The disquisition of LÖWENHARDT combats this view of forensic medicine, and sustains the counter-proposition, that a new-born child, even if it has not yet breathed, may live, and consequently may be killed and murdered. The proposition of Zeissing is well adapted for the convenience of those who wish to confine the evidence of life to the floating of the lungs on water.

ARATA remarks, that the cord may be tied in two ways, namely, efficiently, so as to close the blood-vessels, and inefficiently, so as to leave them entirely or partly open.

LÖWE examined the bony residues of an almost entirely decomposed corpse of a child, and pronounced them to be derived from a foetus which had probably died in utero, and had consequently been born dead.

LUCAS remarks on the signs by which accidental strangulation of the child, by the cord, may be distinguished from intentional strangulation after birth.

BEHR communicates the case of a new-born child which had died of apoplexy, caused probably by an inflammatory condition of the brain existing while in utero.

VIII. FORENSIC PSYCHOLOGY.

Wilbrand.—Manual of Forensic Psychology, for the use of physicians and jurists. *Erlangen*, 1858.

Schwebes.—On Legal Responsibility, in the sense of the new Criminal Code, foro-medically considered. (Casper, 14, 2.)

Mair.—On the Present State of the Question of Legal Responsibility. *Bayer'sches ärztl. Intell. Blatt.*, May, 1858, No. 21.

Schneider.—The Position of Psychology relative to Criminal Law and Practice, represented by the discussions of the Psychiatric Section of the Thirty-fourth Meeting of German Naturalists and Physicians. (*Deutsche*, 12, 2.)

Plagge.—Aphoristic Thoughts on the question—Is the assumption of reasons for legal responsibility admissible or necessary in practice? (1b.)

Löwenhardt.—(Loc. cit., p. 7.) First Examination of the Question—Is a "diminished," or, as others call it, "a conditional," legal responsibility to be assumed

in practice, and what advantage can be expected to accrue from its introduction into criminal law? A contribution to the doctrine of legal responsibility in general.

Schlager.—On the present Scientific Starting-point of the Medico-forensic Psychologist. (Oesterr., 4, 10.)

Böcker.—On the Functions of Judge and Physician in the determination of Legal Responsibility. (Henke, 38, 4.)

On the Legal Responsibility of Juvenile Criminals. (Friedreich, 9, 4.)

On the Legal Responsibility of Drunken Persons (according to the Prussian laws). (Ib.)

On Transitory Mania. (Freidreich, 9, 2.)

Richter.—Revision of the Doctrine on the Foro-medical Relations of Mania. (Casper, 14, 2.)

Kürner.—(Loc. cit. Würtemb., 28, 9.) Legal Responsibility of a Person convicted of Arson.

Maschka.—(Loc. cit. Henke, 38, 1.) Opinion on the Legal Responsibility of A. O—, æt. 16, being of sound mind, accused of Arson. 8. Opinion on the State of Mind of a Married Woman V. N—, accused of Arson, but being of sound mind.

Hofmann.—On the Mental Condition of Seven Persons committing Arson. (Henke, 47, Suppl.)

Brunner.—Are not the A—s, husband and wife, legally responsible? or is the highest weakness of intellect to be assumed, which does not exclude legal responsibility? (Ib.)

Vezin.—Did the Proprietor, L. H—, at W—, who otherwise appeared of sound mind, commit the Breach of the Peace, of which he stands accused, during a sudden Attack of Insanity. (Ib.)

Schneider.—(Loc. cit., iv.) Supreme Foro-medical Opinion on a Case of Questionable State of Mind. (Deutsche, 11, 1.)

——— Supreme Foro-medical Opinion on a Case of Arson. (Ib., 12, 2.)

Hafner.—Medico-forensic Opinion on a Case of Attempted Murder and Suicide by a melancholic person, through Poisoning with Arsenic. (Ib., 11, 2.)

Falret and De Pietro-Santa.—Assassination of Mrs. Loalier by her Husband during a Fit of Alcoholic Delirium. Repeated attacks, increasing in number and severity; general intermittent alienation; complete feebleness. (Ann. d'Hyg., April, 1858, 18.)

Pontier.—Medico-legal Report on the Mental State of Marie Pons, accused of Attempts at Murder. (Annal. Médico-psycholog., 1858, tom. iv.)

Dragonet.—Medico-legal Report on the Mental Condition of B. A—, accused of Murder. (Ib., April.)

Cazenave.—Medico-legal Report on the Mental State of C. B—, accused of Devastations of the Harvest and Assaults on the Public Force. (Partial insanity.) (Heid., April.)

Levincart and Billod.—Medico-legal Reports on the Mental State of one Charles. Attempt to Murder a Magistrate. (Ib.)

Schubert.—Inclination to Murder (or Impulse = Mordtrieb). (Berliner Med. Zeitung, 1858, No. 10.)

Mahnert.—Report on the Bodily and Mental Condition of a Woman accused of Arson. (Casper, 13, 1.)

- Maschka.**—(Loc. cit., Prag. 2, 9.) Examinations of Lunatics. Medico-forensic Report on the Mental Condition of the Murderer L. P.— (Oesterr., 4, 39.)
- Lang.**—Contribution of a Medico-forensic Case. (Ib., 4, 41.)
- Krauss.**—Legal Responsibility of a Libeller. (Deutsche, 12, 1.)
- D'Eggs and Dragonet.**—Medico-legal Report on the Mental State of the Girl M. O—, accused of Thefts. (Archiv. gén. de Méd., Oct., 1858.)
- Billard.**—Medico-legal Report on the Mental State of A. S—, accused of Beating and Wounding.
- Casper.**—(Loc. cit., ii.) I. *Doubtful insanity.*—145. Carl Schreber, the Mecklenburgh Prince. 146. Attacks of mania during legal proceedings. 147. Alleged weakness of memory; perjury. 148 and 149. Alleged mental weakness after illegal acts, of educated accused persons; doubtful capability of administering affairs. 151. Alleged “fear-of-being-persecuted insanity” (“Verfolgungswahn,”) in a dangerous criminal. 152. Fraud in alleged idiocy. 153. Case of the woman Glaser, who sees the devil. II. *So-called amentia occulta and mania transitoria.*—154. Melancholic insanity; Blaik, the murderer of his children. 155. Melancholic insanity; Dietrich, the murderer of his son. 156. Melancholic insanity; infliction of a wound on the head. 157. Killing a boy during melancholic insanity. 158. Severe injury to a child; apparent transient mania. 159. Sudden transient attack of mania, produced by somatic causes. 160. Attempt at murder during a doubtful state of mind. III. *Insanity; lucid intervals; fixed insanity.*—161. Domination of a fixed idea. Capability of administering affairs. 162. Killing a supposed rival. 163. Attempt at murder during fixed insanity. 164. A querulous madman. 165. A querulous madwoman. 166—169. Querulous mad people. IV. *Insanity of drunkenness.*—170. Injury caused during intoxication and state of congestion. 171. Neglectful bankruptcy; doubtful capability of administering affairs. 172. Manslaughter during the after-effects of a strong intoxication; diminished legal responsibility. V. *Insanity of somnambulism; somnambulism.*—173. Coitus allowed during sleepiness. 174. Condition approaching upon somnambulism. VI. *Insanity; passions, and effects.*—175. Insanity of anger. VII. *Insanity; the so-called morbid tendencies.*—176. Doubtful state of mind of a thief. 177. Ditto. 178. Theft during alleged morbid desire caused by pregnancy. 179. A girl, æt. 15, committing arson. 180. Similar case. 181. Again the “internal voice” of a young person committing arson. 182. Poisoning and attempt at arson by a young apprentice. 183. A young devastator of graves. 184. A young swindler, without apparent motive. VIII. *Idiocy.*—185. Can the testimony of an idiot be received? 186. Legal responsibility of an epileptic idiot. 187. Legal responsibility of a weak-minded young person who has committed arson. 188. Theft by an idiot. IX. *Deaf-dumbness.*—189. Attempt by a deaf-dumb man to commit rape and manslaughter. 190. Capability of a deaf-dumb person to administer affairs. 191. Capability to administer affairs reobtained by a deaf-dumb person. 192. Limited capability of a deaf-dumb person to administer his affairs. 193. Incapability of a deaf-dumb person to administer his affairs. 194 and 195. Two brothers born deaf and dumb.
- A. Murray's Trial for Murder. Defence of Insanity. Edinb., 2, 754.

SCHWEBER criticises the new Prussian laws relative to legal responsibility, and vindicates to physicians the right of influencing

decisions upon this point in courts of law; as also the right and duty to give evidence, not only in accordance with the letter, but also the spirit of the law.

MAIR reports the discussions upon the question of legal responsibility which occurred in the Bavarian Representative Chambers, and points out the great difference of opinion which existed upon the principles involved in the question.

SCHNEIDER details nineteen propositions, which were made by Fleming, and discussed by the meeting mentioned. From them we gather that the forensic physician, in psychological cases, has, or may have, two distinct functions—namely, the first, to determine how far a case of mental alienation is dependent upon somatic disease; and the second, to ascertain whether mental alienation is really present. Those who believe that mental, are always the consequences of somatic diseases will not agree with this proposition.

PLAGGE, starting from certain speculations, assumes that there must be several degrees of legal responsibility.

LÖWENHARDT combats the views of diminished legal responsibility, which had been assumed by Ideler in two Prussian “superarbitria,” and shows that the proposed distinctions and gradations would lead to great practical difficulties.

SCHLAGER publishes some psychiatrical speculations.

BöCKER, after considering the German law, comes to the conclusion, that, in questions of legal responsibility, the judge must put special questions to the medical witness, referring to the individual case, and that a formula for putting questions relative to legal responsibility does not exist.

FRIEDREICH reports the case of a boy, ten years old, who murdered his sister. Poverty, immorality, and a tendency to beg and steal, with absence of all instruction, were urged as mitigating considerations.

The contents of the remaining articles of this section appear to be sufficiently indicated by their headings.

REPORT ON HYGIENE AND PUBLIC HEALTH.

A. PRIVATE HYGIENE.

I. DIETETICS.

a. Journals.

The Treasury of Health; a Journal edited by LUBACH and EGELING. *Haarlem*, C. Zwaardemaker.

Hygiene seems at last to make some progress in Holland, where formerly it was little cultivated. The States General want a reform of the laws concerning the medical profession and public health. Meanwhile scientific men are endeavouring to inform the people on matters of hygiene. The above journal is popularly written, and appears calculated to fulfil its object.

b. Treatises.

Ideler.—Hand-book of Dietetics for Friends of Health and Longevity. 3d edit. *Berlin*.

Wittmaack.—Popular Hand-book of Dietetics. *Leipsic*.

Reich.—Manual of General Etiology and Hygiene. *Erlangen*.

WITTMACK, well known as the author of a book on rational therapeutics, has entitled his work a popular one; but it is so scientifically written that few laymen will be able to read it without a commentary. The section on the evil consequences of premature study and over mental exertion, and on the premature practice of music, is full of useful warnings. In another chapter he proves to youth of both sexes, that early fruition is the grave of all late enjoyment. The author, like IDELER, is a great advocate for gymnastics, which he terms the principal agent for the rejuvenescence of body and mind. It is satisfactory to find that gymnastics, which during the last half century have mainly been reintroduced by enlightened schoolmasters, are now being warmly advocated by medical men.

REICH's book has a political tendency, whence it has become the subject of a legal prosecution in Bavaria. He wants to take education out of the hands of the clergy altogether, and to have it superintended by a central medical council. His book is one of those unpractical declamations, which, being useless to the people, meet with no support, and being offensive to the parties in power, bring down persecution upon the authors.

II. FOOD.

Artmann (Captain on the Staff of the Imperial Austrian Engineers, and Professor at the Military Engineering Academy, Klosterbruck).—Treatise on Food. *Prague.*

The author begins with the elementary chemistry of the general materials entering into the composition of plants and animals, and describes in outline their compounds and alterations. The principle of the conservation of force he illustrates in a practical manner, and then passes on to the consideration of nutrition. A definition of food and nutritive materials is then arrived at; and it is stated that experience only can teach whether a substance is food or not, and that, without experience, science could not teach it. This distinction between science and experience, though doubtless unphilosophical, may perhaps be pertinent to the position from which the author's intended readers may be supposed to regard the subject. He then treats of albuminous substances, their qualities and powers. Alcohol, the author believes, has the property of retarding the decomposition or disintegration of matters in the body, as well of the fluids as of the tissues: by thus lessening the necessary amount of food it acts as a saving agent. But beyond this hypothesis, and an admission of the usefulness of alcoholic drinks as general and special stimulants, we meet with no specific knowledge on this most important subject. According to the author, alcohol, in the form of the usual beverages, excites the imagination more than the other forms of cerebral activity; while tea and coffee raise the intellect. But while alcohol excites not only the brain but also the rest of the body, tea and coffee have a sedative effect upon the rest of the body. The author enunciates the general principle, that food must be so adapted to the individual that he can attain therewith the highest development of his physical and spiritual

powers. He then offers, as a practical suggestion, the mixing of food which is easily digestible with other food which is less so, in order that the former, by being obliged to remain longer in the intestinal canal, may be more exhausted. The chapter on cookery is interesting. Special attention must also be drawn to the chapters treating of the dieting of soldiers in Austria and other states.

III. ILLUMINATION OF PRIVATE DWELLINGS.

Chiapelli.—Treatise on Private Hygiene. *Le Sperimentale*, Nos. 9 and 10.

The author speaks of the various changes which air undergoes in inhabited houses. He considers the relative vitiation of the air, effected by the different combustibles used for the purposes of artificial illumination; and objects strongly to the use of gas in houses, although on very questionable grounds.

PUBLIC HYGIENE.

I. LAWS CONCERNING THE MEDICAL PROFESSION.

Wernert.—Condition of State Medicine in France. On the principal Points of Public Hygiene, and its application in the Department of the Upper Rhine, with a Comparative Review of Public Health and Disease in Germany. (*Deutsche*, 11, 1.)

Menges.—Medical Statistics in their Application to the internal Administration of the State. (*Henke*, 4.)

Vogler.—The renewed desire for Reform in the Medical Laws of Nassau, expressed in the Representative Chambers of the Year 1856. (*Ib.*)

Horn.—The Medical Profession in Prussia. Represented from official sources. 2 vols. *Berlin*, 1851 and 1858.

Löhr.—Discussion of some Questions from the Sphere of Medical Police. (*Henke*, 3.)

Blöefeld.—Further Report on Instruction in State Medicine at the University of Kasan.

MENGES publishes contemplations, instigated by Tonnay's statistical communications concerning teeth. He considers hygiene to be the most useful sphere of the physician, and believes that the subordinate value of therapeutics may be proved by statistics.

VOGLER's paper concerns the laws by which the medical profession in Nassau is governed. In that part of Germany, all medical practitioners are appointed by the state, which also pays their

salaries, and prescribes special charges for services rendered to individuals. The salary is generally small, while the charges are ridiculously small. In consequence, the financial condition of Nassovian practitioners is bordering upon poverty, particularly since the great rise in price of all the necessities of life which has taken place in Germany during the last ten years. A more intolerable interference with the natural laws of free trade and professional liberty, or a more abject slavery than that of a Nassau practitioner of medicine, cannot be imagined. The sooner the Representative Chambers leave the practice of medicine a free profession, as in the rest of Germany, the better.

HORN's work affords proof that the medical laws in Prussia are good and well administered. There is, no doubt, a little too much scope for interference from above, but it is generally not abused. The collection of laws concerning the medical profession in Prussia is complete and well arranged, and accompanied by good commentaries and suggestions for improvement.

The article of WERNERT shows that the hygienic condition of the Department of the Upper Rhine (Alsatia) is far from satisfactory. The condition of lying-in hospitals, foundling hospitals, asylums for orphans, the blind, and the deaf and dumb, is either deficient or badly arranged and managed. The condition of the poor, of pauper lunatics, and of convicts, is successively described and discussed. The laws concerning the certificates of the causes of death which prevail in country places prevent the collection of useful statistics upon that subject. The laws regarding burials are very deficient. Thus, only five years are fixed as the period which must elapse from one interment before another can take place upon the same spot. From all this we gather, that, while in Paris, hygiene interferes in all public and private arrangements with exaggerated assiduity, on the Upper Rhine it requires much advancement.

LÖHR desires that medical police should be taught at the universities in a more practical manner than has hitherto been customary.

BLOEFELD reports the lectures on public health, forensic medicine, and allied sciences, which are given at the University of Kasan. The different branches are laid out in a very systematic manner.

The Bavarian medical officers of health and state medicine have petitioned the Bavarian Chamber of Representatives for an increase of their salaries.

II. MEDICAL STATISTICS AND TOPOGRAPHY.

On Statistics of Mortality and Morbidity. Report of the Royal Prussian Scientific Deputation for Medical Affairs, relative to a Schedule to be used for Registers of Mortality. (Casper, 14, 2.)

Guerard.—Nosological Statistics of Deaths. (Ann. d'Hyg., 17.)

Majer.—On the Fluctuation of the Population in Middle Franconia during the years 1851 to 1856. From official sources. (Henke, 3.)

——— On the Fluctuation of the Population in the Grand Duchy of Baden during the period from 1852 to 1855. (Deutsche, 12, 1.)

Spengler.—Medical Mecklenburgh; Notes collected during a Journey in 1855-56. (Ib.)

Zelting.—Registers of Population, Births, Marriages, and Deaths, in the Principality of Ostfriesland, from 1837 to 1852. (Henke, 2.)

Boudin.—Statistics of Diseases which have caused Death in Belgium during the period from 1851 to 1858 inclusive. From the newest Official Documents. (Ann. d'Hyg., No. 17.)

——— On the Movements of the Population in France and Algeria, according to Official Documents. (Ib., 18.)

Trebuchet.—Researches on the Mortality of Paris in 1853. (Ib.)

Report on Public Health, and the Activity of Civil Hospitals in the Russian Empire, for the Year 1856. *Berlin.*

Majer.—The Sanitary Condition of the Bavarian Penitentiary, Lichtenau. (Deutsche, 11, 1.)

Fonssagrives.—Medical and Hygienic Visit to La Trappe de Notre Dame de Grace de Bricqueber. (L'Union Méd., No. 66.)

Dutrouleau.—Medical Topography of Intertropical Climates. (Ann. d'Hyg., 19.) [Concerns six French Colonies.]

Kropf.—Studies concerning the Medical Topography of the Kingdom of Bavaria, and the application to Pathogenesis of Tables of Mortality.

Our limited space does not admit of any extracts from the above statistical articles.

SPECIAL TREATISES.

Pappenheim.—Hand-book of Sanitary Police, based upon original Researches. 2 vols. *Berlin.*

This work is a compendious dictionary, considered to be of use to German officers of health.

I. PUBLIC INSTITUTIONS.

a. Charities.

Blondel.—On Public Assistance, and its Relations to Hygiene. (Ann. d'Hyg., 17.)

BLONDEL'S paper gives a description of the administration of the poor-laws in France, including hospital relief, which there is afforded by the communes. In 1856, the total sum of money expended at Paris by all the charitable institutions amounted to 15,600,000 francs, equal to £624,000.

b. Foundling Institutions.

Routh.—On the Mortality of Infants in Foundling Institutions, and generally as influenced by the absence of Breast-milk. (Brit. Med.)

ROUTH is of opinion that foundlings should not be brought up in towns, but in the country, whereby the mortality is lessened. He advises the transformation of large wards into smaller, well-ventilated, rooms, to hold not more than four cribs each, to the inmates of which the entire attention of one nurse should be devoted. Wet-nurses are to be provided, but preference is to be given to the mothers of the children themselves. The extensive inquiries of the author have yielded him a rich harvest of statistics, which serve as the basis of thoroughly practical advice.

c. Dead-houses.

Brunner.—The Constitution and General Arrangements of the Dead-house at Volkach-upon-the-Maine. (Henke, 47, Supplement.)

A country practitioner describes how, with limited means and against many obstacles, he contrived to build a dead-house, and to induce the people to deposit their dead in it previous to burial. Those who are acquainted with the evils arising from the manner in which the London poor keep their dead relatives and friends, would wish similar institutions to be provided here. The only dead-houses we possess are the sheds of the workhouses, which are both insufficient and inappropriate for the purposes of a sanitary institution.

d. Slaughterhouses.

Feit.—On Public Slaughterhouses, and their Advantages before Private Slaughterhouses. (Casper, 14, 2.)

The author again, and exhaustively, urges the reasons for which slaughterhouses ought to be public institutions. The sale of meat from diseased animals, which is so common a source of disease, would thereby be prevented.

e. Ventilation, Warming, and Lighting.

Kinnell.—System of Ventilation. (Med. Times, May, 58.)

Tripier.—On the Ventilation and Lighting of Theatres. (Ann. d'Hyg., 19.)

Guérard.—On the Explosions of the Water-apparatuses which are used for Heating and Ventilating Public and Private Buildings. (Ann. d'Hyg., 18.)

KINNELL adopts two concentric tubes, made of zinc, which lead from the ceiling to the roof of the house. By the inner and higher tube the contaminated air rises; through the outer tube the fresh air descends.

TRIPIER has contrived a system of ventilation for theatres which meets many of the disadvantages to which the plans at present in use are liable.

In France many private and public buildings are now being warmed with hot water, which is conducted through the house by a continuous system of iron pipes. In public buildings, Duvoir's and Grouvelle's patents are most commonly used. Explosions are not of uncommon occurrence, and hence Guérard has devised certain safety-valves, which seem calculated to obviate the evil consequences of excessive tension.

LEOPOLD reports the accidental death, by coal gas, of a person forty-one years of age, who slept in a room in which a considerable escape of gas took place from an ill-secured pipe. In the same house a man, a child several years old, and a baby, had all suffered from stupor, vertigo, and shortness of breath, sickness, and great prostration, produced by the gas escaping from the room in which the unfortunate man met his death.

f. Water-supply.

Knolz.—On the Noxious Influence of the Wien River, and the Deficient Water-supply of Vienna. (Oesterr., No. 42.)

Snow.—Drainage and Water-supply in connection with the Public Health. (Med. Times, No. 398, 1858.)

In Vienna there is great dearth of drinking-water. KNOLZ considers the construction of a large aqueduct for bringing a supply of wholesome water into the town an absolute necessity. There are many rivulets near the town, from which an abundant supply might be procured. Their water comes from the glaciers and snow of the high mountains, which are only about fifty miles (English) distant from Vienna.

g. Sewers, Drains, and Privies.

Barker.—On the Influence of Emanations from Drains and Cesspools.

Duponchel.—A new System of Closets for great Public Establishments, particularly Barracks, Military and Civil Hospitals. (Ann. d'Hyg., No. 20.)

Hofmann and Frankland.—Report on Sewage. (Lancet, 2, 270.)

Bernays.—Disinfection of the Thames, and of Sewage. (Med. Times, 2, 155.)

BARKER subjected animals to the influence of the foul air from privies and sewers, and found various pathological conditions produced, which he compared with, and found similar to, the effects produced upon animals by diluted sulphuretted hydrogen gas.

DUPONCHEL's system would be an improvement for most parts of France, but offers no new features of interest for this country.

HOFMANN and FRANKLAND have presented an elaborate report to the Metropolitan Board of Works on London sewage. An enormous variety of suggestions were passed in review. They had to consider proposals for disinfection by protosulphate of iron; by superphosphate of magnesia and lime; by galvanic or electric agency; by the manganates and permanganates; by the ferruginous sulphate of alumina; by chlorine; by "the antiseptic hydrochloric acid, liquefied protosulphate of iron, and chloride of sodium combined;" by perchloride of iron; by sulphuric acid; by the abolition of waterclosets, and the substitution of boxes containing peat charcoal (G. Garbert, Esq.); by "cendre noire," a pyrito-aluminous lignite much used by the scavengers of Paris; by "pyritous peat;" by "dosing the river at various points with common salt" (C. N. Gattolo, Esq.); by carbolate of lime in solution, and the use of a solid mixture of sulphites and carbolates; by the use of scrap-iron and subsequent filtration; by the separation of the sewage from the rainfall, a plan hitherto impossible, but rendered feasible "by the discovery, in November last, of something in the nature of steam, which was hitherto unknown" (Rev. H. Moule); by a

mixture of sulphate, oleate, and chloride of zinc and of sulphate of manganese; and by other chemical and mechanical methods, either unexplained or too elaborate for description. The trials made by Hofmann and Frankland led them to recommend a concentrated solution of perchloride of iron, to which Ellerman had called their attention. It is superior to chloride of lime, both in its immediate and permanent effects. Moreover, it effects a very rapid clarification of the sewage. The authors propose to add one gallon of the perchloride to 15,000 gallons of sewage, and, after subsidence, to separate the clarified liquid from the deposit of filth, and run it only into the stream. The cost of the disinfection is estimated at a probable sum of £14,000 per annum. The actual process of deodorization will present less difficulty than the separation of the spontaneous deposit by filtration or subsidence. The reporters suggest that the disinfecting operation should, as far as possible, be conducted at a distance from densely populated districts.

BERNAYS found that sewage of the worst description, emitting the most deleterious gases, could be rendered perfectly sweet and harmless, emitting only the odour of the impure coal creasote, by the disinfectant of Messrs. Smith and McDougall, of Manchester, namely, a mixture of carbolic acid and bisulphite of magnesia. At the suggestion of Miller, experiments on a large scale were instituted in the sewer of Tavistock Street, Tottenham Court Road. These were sufficiently satisfactory to warrant the application of the same reagent to the Thames. The details of these experiments are given in Bernays' paper.

II. CLIMATES AND THEIR INFLUENCE.

Dutrouleau.—Medical Topography of Intertropical Climates. (Ann. d'Hyg., No. 20.)

Milroy.—Advantages of Mountain Sites for Barracks in Hot Climates. (Lancet, 2, 59.)

——— Notes on Barracks and Military Hospitals in Hot Climates. (Ib., 1, 531; 2, 333.)

Livingstone and Kirk.—African Fever on the Lower Zambesi. (Med. Times, 2, 473.)

The paper of DUTROULEAU is an inquiry into the climatic peculiarities of the stations possessed by France between the tropics. The nature of the soil and the local meteorology are summed up as the principal conditions of salubrity.

About twenty years ago the mortality among the English troops in Kingston, Jamaica, amounted to 128 in 1000 per annum. The barracks were in consequence removed to a high, mountain station, about 3800 feet above the level of the sea. In the first ten years the mortality remained as low as 14 per 1000 per annum, scarcely exceeding the mortality at Rome. But since 1851 the new station, Newcastle, has been visited by cholera and yellow fever successively, teaching the important lesson that mere elevation and healthiness of a site will not suffice as safeguards against the deadly diseases of the plains.

During the first ten years fever and dysentery prevailed amongst the troops, which diseases diminished, however, as the ground around the cantonment was freed from underwood and rank vegetation, and well trenched and drained.

When MILROY visited Newcastle, in 1851, the latrines of the barracks were in a very offensive state, although fifty pounds had been spent for quicklime to improve them.

Newcastle is situated at an inconvenient height. The cantonment of Maroon Town is only about 2000 feet high. Stoneyhill barracks are 1200 feet high, and though, like Maroon Town, situated most salubriously, have nevertheless been abandoned. It is clear that local and domestic hygiene only can keep a good climate and a good site salubrious.

LIVINGSTONE and KIRK describe some cases of fever observed during their latest expeditions. They are not very typical in symptoms, and are amenable to treatment, purgatives and quinine proving generally successful. Quinine did not prove a preventive. They found existing within a short distance from the coast a healthy region, well suited for the residence of Europeans.

III. HYGIENE OF ARTS, TRADES, MANUFACTURES, AND PROFESSIONS.

The 'Medical Times' of January 22d, 1858, gives a leading article on the health of the English army and navy.

a. Lucifer-match manufacture.

Measures which are to be taken for the protection from Phosphorous Disease of the Workpeople in Lucifer-match Manufactories. Report of the Royal Prussian Deputation for Medical Affairs. (Casper, 13, 2.)

This is a compilation of the results of the reports of all the provincial governments, and the presidency of police, upon the

diseases caused by phosphorus to workpeople in lucifer-match manufactories.

In seventy-five manufactories there occurred about forty-five cases of necrosis of bones. Most of the cases occurred among the men who have to prepare the phosphorus mixture and those who have to dip the matches into it. Weakly, scrofulous persons, and those having decayed teeth, were particularly predisposed.

The hygienic rules given by the Medical Council of Prussia may be summed up as follows:—Airy position of the manufactory; large, high, well-ventilated workrooms; great cleanliness; frequent relays of workpeople; and distribution of varied work to all in rotation. But these precautions are not sufficient. Common phosphorus is, therefore, to be superseded by the red, amorphous modification.

b. Compositors and Printers.

Heins van Holzbeeck.—On the Principal Diseases of Compositors and Printers, and their Prevention. (Oesterr., No. 48.)

The causes of disease among printers and compositors are impurity of the atmosphere from gas, tallow-candles, moisture, and turpentine; crowding; and working at night.

c. Workmen with noxious colours.

1. White-lead.

Chevallier.—Note on the Health of Workmen who prepare the Fine Colours. (Ann. d'Hyg., April.)

CHEVALLIER describes the occupation and diseases of these workmen, and gives preventive measures.

2. Copper-colours.

Prosper de Pietro Santa.—Is there a Disease peculiar to Workmen who handle Paper stained with Schweinfurt Green. (Ann. d'Hyg., 20.)

——— On the Non-existence of Copper Colics. (Ib., 19.)

Schweinfurt green is a double salt of arsenite and acetate of copper. The process of staining paper with it is described. The colour, by immediate contact, produces vesicles, pustules, or ulcerations, on fingers, toes, genitals, particularly the scrotum; but they may be easily prevented by cleanliness. General symptoms have not been observed.

d. Manufacture of Silk.

Reybaud.—Report to the Academy of Moral and Political Sciences upon the Moral, Intellectual, and Material Condition of Workpeople who live by the Preparation of Silk. (Ann. d'Hyg., 18, 19.)

This interesting report is based upon original observations which the author made during a journey on which he had been sent by the academy. The journey extended over France, Rhenish Prussia, and Switzerland, the principal seats of industry in silk.

e. Trades in which dust is inhaled—Coalheavers and Metal-founders.

Vernois.—On the Influence of various descriptions of Dust on the Health of the Artisans. (Ann. d'Hyg., No. 18.)

The author arranges the various descriptions of dust under three categories, corresponding to the materials from which it is produced. We have animal, vegetable, and mineral dust, and various descriptions of mixtures, most of which the author enumerates. The author mainly confined his statistical inquiries to coalheavers, or dealers in coals, and to metal-founders, which trades were reported in Paris to predispose to tuberculosis and asthma. He found that the inhalation of coal-dust does not increase the proportion of persons suffering from phthisis or emphysema over that existing in the ordinary population of the same rank; that phthisis, instead of being favoured, was rather arrested by coal-dust; and that the proximity of coal seemed to protect those trading in it from a variety of diseases to which other persons living under similar circumstances of an unfavorable kind, *e.g.* in damp, ill-ventilated, and badly lighted houses, are more liable.

In 1855, an examination of 96 foundries was instituted, at the request of the President of Police. In 67 only was there any work going on, while 29 were on the eve of closing their career. The number of artisans employed in the active establishments was 1476. Of 1089 workmen employed in 41 manufactories, only 98 were engaged in moulding, a process in which coal, or coal and clay, are employed. From the particulars given by VERNONIS, it appears that the coal-dust produced in the course of moulding is not detrimental to the health of the moulders.

IV. FOOD, STIMULANTS, AND MEDICINES.

The 'Lancet' of October 29th, 1859, p. 443, contains a leading article advocating legislation on the subject of the adulteration of food. Passages from speeches of Lord Brougham and the Hon. W. Cowper are quoted in support of a bill introduced into the House of Commons by Mr. Scholefield.

a. Flour and Bread.

Krügelstein.—On the Medico-legal Inspection of Flour and Bread. (Henke, 3.)

Griepenkerl.—On Ergot of Rye, and of other Gramineæ. (Casper, 13, 1.)

Niemann (of Magdeburg).—Communication of an Opinion of the Medical Council for the Prussian Province of Saxony, relative to the Noxious Influence of Ergot of Rye. (Ib., 14, 1.)

Anonymus.—Bread of "Quick-grass" and Potatoes. (Ib., 13, 2.)

Besides the accidental admixture of the flour of wheat and rye with the flour of the seeds of other gramineæ, which, like diseased rye or ergot, are very unwholesome, KRÜGELSTEIN enumerates a variety of adulterations ascribed to the malice of man. Thus we hear of sand, ashes, bone, lime, and white lead, as frequent ingredients; and are informed that in England the cheap sulphate of baryta is daily bought by millers and bakers in quantities of many hundredweights, to be mixed with flour and bread. These groundless denunciations are but the echo of the gross exaggerations of a portion of our English press. The author, after having shown that good flour may spoil by undue exposure to moisture, enumerates the methods of testing flour for its qualities. One is to make a mass of dough with water, and test it for its elasticity; another consists in pressing a handful of flour, and placing the compressed lump upon the table. To be good, it must retain the shape given it by the hand, and not collapse. The admixture of gypsum or bone-earth causes immediate collapse of the lump. (The best flour, if very dry and not over-finely dressed, will frequently not retain its shape, but collapse, while flour rendered moist by exposure to the atmosphere, or preservation in a damp place, will retain it.) The addition of prepared chalk may be discovered by adding hydrochloric acid to a mixture of flour and water; the addition of common salt and alum, by the taste.

The author then refers to the traces of copper naturally found

in flour, and the ashes of vegetables in general. Finally, he describes the properties of bread, good and bad. The elasticity of bread, the crispness of its crust, the whiteness of its crum, and purity of its flavour, constitute its four cardinal virtues.

In two districts of the south-western part of the Duchy of Brunswick, on the slopes of the Hartz and Lolling Mountains, an epidemic of ergotism occurred during the years 1854 to 1856, which was throughout of the convulsive type. Of the patients who came under GRIEPENKERL'S care, not one died; but in other districts, where the corn contained as much as 25 per cent. of ergot, many persons succumbed to the disease. Among nearly 40,000 inhabitants, there were 155 cases of ergotism, of which 25 terminated fatally. Of the 155, 62 were persons below fourteen years of age, and of these 11 died; so that almost half of the fatal cases were those of children. Infants at the breast did not take the disease, although the mothers were severely affected.

According to Griepenkerl, women are less predisposed to ergotism than men, while the reverse is stated to be the case by NIEMANN. According to the former, muscular exercise favours the production of ergotism. It is evident that the largest quantity of ergot of rye taken in the shortest time produces the most certain appearance of peculiar toxic symptoms, and is doubtful whether there is any special predisposition on the part of individuals.

The paper of ANONYMUS contains impracticable propositions for making cheap bread in hard times.

b. Vegetables.

Chevallier and Son.—Chronological Researches on the Means for Preserving Food from the Animal and Vegetable Kingdoms. (Ann. d'Hyg., No. 17.)

The authors enumerate in chronological order the means which have been adopted up to the present time for preserving vegetable food. They next demonstrate that green vegetables can be completely preserved by drying. The process, however, in order to be profitable, must be carried on on a large scale. By a new extensive industry, they are of opinion all classes of society could constantly be supplied with sound vegetables.

c. Meat and Sausages.

On the Nature of the Sausage Poison, and the Poison sometimes found in Smoked Meat. (Casper, 13, 1.)

Fifty per cent. of the cases of poisoning by sausages or smoked meat occur in April, a fact which points towards the conclusion that the poison is a product of decomposition resulting from the influence of an increasing temperature. All attempts to save persons poisoned by these products of decomposition have hitherto proved unavailing. Van Den Corput believes the poisonous principle to be an elementary plant, an alga or fungus, belonging to the Sarcinæ, for which he proposes the name of *Sarcina botulina*. The phosphorescence observed on decomposing organic matter is also due to cryptogamic plants—Rhizomorphæ. This fact was first noticed by Heller, who termed the microscopic alga *Sarcina noctiluca*, and ascertained that it belonged to the group of the Isocarpeæ.

d. Fish.

Wolff.—Poisoning of several Persons by Fried Sturgeon-liver. (Casper, 14, 2.)

A healthy young woman, a boy seven years old, and two female servants, were taken ill four hours after having partaken of fried sturgeon's liver. The symptoms were violent headache; pulsation and pricking in the temples; swelling of the whole face, the surface of which became dark-red and very hot; violent burning in the nose, mouth, tongue, and throat; red, painful eyes; noises in the ears; a white-coated tongue, and great inclination to vomit. After four days of appropriate medical treatment the symptoms disappeared, and desquamation of the epidermis and of the epithelium of the cavities of mouth and nose, as in scarlatina, began. The other members of the same family, who had only eaten of the flesh of the sturgeon, but not of the liver, had no signs of indisposition.

e. Wine.

Chevallier.—On Plastered Wine. Researches made by Order of the Minister of War. (Ann. d'Hyg., No. 19.)

— On the Plastering of Wine, the Effects of Plastered Wine upon the Economy, and the Value of such Wine as a Beverage. Should Plastering be permitted, or considered as a Falsification? (Ib., 20.)

The "plâtrage" of wine consists in strewing gypsum over the grapes just collected. It is a very ancient process, and is said to offer the following advantages:—1. It gives a more brilliant colour to the wine, by preventing the solution of the whole amount of colouring matter contained in the pellicle of the grape, the gypsum probably forming an insoluble compound with the red matter. 2. In consequence of the diminution of colouring matter, the wine is more easily preserved. 3. The abstraction of water from the juice increases the relative quantity of alcohol, and, consequently, the vinosity or strength of the wine.

The soldiers of the French army, particularly the army of Algiers, receive a ration of wine. It having been learned that the contractors supplied plastered wine, the Minister of War requested men of science to give their opinion, whether or not the use of plastered wine was detrimental to health.

Several distinguished chemists examined a variety of wines, comparing the composition and properties of plastered with those of unplastered specimens.

CHEVALLIER reports, with great care and acuteness, upon these researches, which show a great harmony in their results, and draws the following conclusions. Non-plastered wine contains water, alcohol, tartrate of potassa, chlorides, phosphates, and sulphates in small quantity. Plastered wine, on the other hand, contains water, alcohol, sulphate of lime, sulphate of potassa, acetate of potassa, and, in case the plaster contained alum, sulphate of potassa and alumina, acetate of alumina, acetate of magnesia, &c. There is, therefore, a considerable difference in the composition of the wines, and their influence upon the human economy must also differ. If the plastered wines are injurious to health, the operation of plastering should be interdicted; if they are not injurious, it should be publicly announced, in order to protect the makers of these wines against the imputation of adulteration or falsification. The direct question, whether or not these wines are injurious, Chevallier has not answered.

f. Beer.

Krügelstein.—On the necessity for Control over the Purity and Genuineness of Beer. (Henke, 3.)

The author informs us that he has found great difficulty in establishing what should be normal or standard beer, and describes the

influences which necessarily occasion varieties of beer. Thus, if barley be used for malting which has grown on a field manured with sheep's dung, the beer prepared from such malt does not become clear and bright, and is easily spoiled. After having described the properties of good beer, he enumerates the causes of its badness, and advocates the interference of the sanitary police. When so-called turned, or spoiled, acid beer has been made sweet again by means of lime, potassa, or other alkalies, it is flat, not spirituous, and causes colic, diarrhœa, and affections of the urinary organs. The article describes at length the modes of discovering adulterations. After all, the organs of taste seem to be the principal and most infallible judges of beer, as they are of wine.

g. Mineral waters.

Ossian Henry, father and son.—Practical Treatise on the Chemical Analysis of Drinkable and Useful Mineral Waters, and on their principal Applications to Hygienic and Industrial Purposes. *Paris*, Germer-Baillière.

This work is a sort of encyclopædia of all that is known relative to the chemistry of mineral waters, their hygienic and industrial applications, the geology of the environs of springs. It comprises accounts of natural and artificial mineral waters and of ordinary drinking-water. The chapter, on the medical effects of mineral waters in general, is very interesting to the practical physician. An entire chapter is devoted to the description of animals and plants which live in mineral waters. The sixteenth chapter treats of the purification of unwholesome waters. The work comprises the whole science of water, is written in a very practical style, and will no doubt prove interesting and useful to the medical practitioner, the chemist, farmer, geologist, and manufacturer.

V. CONTAGION AND MIASMA.

Guerdan (of Billigheim).—On the "Genesis organica" of Contagions, and the "Genesis tellurica" of Miasmata. (*Deutsche*, 11, 1.)

Hennigson.—Contributions to the Doctrine of Contagion. (*Casper*, 13, 1.)

Krügelstein.—On the Sanitary Relations of the Trade in Mattresses, Beds, and Bed-feathers. (*Henke*, 4.)

When an author begins an inquiry into a subject of natural and medical science with such a sentence as this: "that ordinary generation is nothing else but an act of infection of the female by the

genital virus of the male," the reader is naturally prejudiced against him. And despite the elaborate character of GUERDAN's argument, the prejudice finds ample justification in the entirely speculative and hypothetical character of all that he advances relating to these great causes of disease.

HENNIGSON relates some cases from his own experience, which go to prove, that when healthy persons are for a short time in one and the same room with patients suffering from cholera, this disease may be transferred to them, although they may live in a place where cholera is not epidemic.

KRÜGELSTEIN believes that phthisis is propagated by the bedding of persons who have suffered or died of that disease; fever, skin diseases, ulcers, particularly cancerous ones, syphilis, and gout, he believes capable of similar dissemination. In support of this proposition he adduces various results from his own experience and that of others.

VI. ENDEMIC AND EPIDEMIC DISEASES.

a. Idiotism.

Klose.—On Idiotism in Silesia, a Politico-medical Sketch. (Henke, 1.)

The author draws a line of distinction between cretins and idiots, and allots the former exclusively to mountainous districts, the latter to the plain. Idiotism thrives where water and vegetation are abundant, where the atmosphere is quiet, and the evaporation considerable. In the rich, flat portion of Silesia there is one idiot to every 3402 inhabitants. Idiotism in Silesia has a predilection for the male sex, of which every 8942 include one idiot, while as many as 12,214 females are required to furnish one. Idiots are only taken care of when they become dangerous to public security. But the author desires that institutions should be established, in which they might be trained and made more useful.

b. Epidemic Ophthalmia.

Laveran and Lustreman.—On the Epidemic Ophthalmia of European Armies. (Ann. d'Hyg., 19.)

The authors were members of the congress which met at Brussels

towards the end of the year 1857, and made a report of the results of their labours to the French Minister of War, of which this paper is an abstract.

Of the predisposing influences—(1.) *Age* appears to be one. Recruits are most liable, and in proportion to their youth. When the conscripts were called in at twenty-one years of age, instead of, as formerly, at eighteen years, a considerable decrease in the number affected with ophthalmia was perceived. (2.) Delicate persons are also more liable than robust ones. (3.) Stormy weather, the cold and wet winds of autumn, the heat of the sun, night-watches, and hardships, are accused by military surgeons as direct causes. (4.) Chronically congested conjunctivæ in connection with former catarrhal or exanthematous diseases. (5.) Mercurialism and other pharmaceutic diseases. (6.) The most fruitful cause is the congregation of many persons in barracks. (7.) The specific cause, the virus from the granulations. Bad ventilation favours the disease. The greatest number of cases occur in the months of September, July, August and June.

The prophylactic and curative measures advocated are of a very stringent nature. In barracks, wards are to be set aside for those having granulations on their conjunctivæ. Patients showing the slightest degree of blenorrhœa are immediately to be sent to the hospital. These barrack-wards must be large and airy, and under good control, so that healthy soldiers may not come in contact with those who are affected. In the hospital the soldiers suffering from ophthalmia are again to be strictly isolated, and classified according to certain categories, particularly the degree of the disease and the amount of purulent discharge. The convalescents are to be placed in particular wards, and subjected to constant supervision. These wards must be kept clean, and ventilated with especial care. Beyond their hours of rest, the patients are not to remain in them. Every individual is to be provided with a separate towel and washing-basin for cleansing the eyes. When the patient leaves the hospital and returns to his respective corps, he is there to be inspected daily, and if a trace of granulation should be discovered or reappear, he is to be returned to the granulation ward. Convalescents who go home on furlough are to be dismissed only after a searching examination, by which the freedom of their eyes from granulations and every secretion has been established.

c. Smallpox and Vaccination.

1. Pamphlets.

Boefeld (Breslau).—Vaccination or Inoculation? A word to establish a good understanding relative to the Smallpox Question. *Breslau*, Goschorsky.

Nittinger.—The Season of Vaccination, and the Protestants against the Poison and Witchcraft of Jenner before the Würtemberg Chamber of Deputies in September, 1858, and before the English Parliament in July, 1858. *Leipsic*, Gustav Brauns.

BOEFELD wishes to make vaccination more protective, by letting it be succeeded by inoculation within a twelvemonth. The proposal is discussed in a quiet and impartial manner, and the discourse should be studied by those who have given the subject their special attention.

NITTINGER has, during several years, obtained a small but deplorable notoriety by his unmeasured attacks upon vaccination. The above outburst is less violent, but, if possible, more perverse and ludicrous, than any of his earlier performances. He concludes an address to the authors of the 'English Blue Book on Vaccination' with a chorus, to be sung "by schools, the police, church, and medicine," in which there is a refrain, of which the following is a translation :

"Vaccination is the monkey's duty ;
Apes, my brethren, therefore let us be."

2. Papers in Journals.

Riecke.—On the Value of Vaccination. (Henke, 2.)

Causé (Gensingen).—On Vaccination and Revaccination. *A pium desiderium* from the Grand Duchy of Hesse. (Ib.)

Remilly.—On Re-vaccination in Public Schools (Lyceums). (Monit. Hôp., 57.)

M'Donnell.—On the Statistics of Smallpox and Vaccination in Ireland. (Dublin Hosp. Gaz., No. 11.)

Winter.—Vaccination and its Compulsion. (Deutsche, 11, 2.)

Faber (Schorndorf).—Vaccination in 1858. (Ibid., 12, 2.)

FABER supports compulsory vaccination upon the basis of an experience of forty-one years, and refutes certain imputations against vaccination which had been uttered before the Würtemberg Chamber of Deputies by a person named Hochstetter.

RIECKE believes variola and variolois to be identical. Variola, he

believes, can be generated, whence the circumstance that the seclusion of patients affected with smallpox rarely prevents the spread of an epidemic. Vaccination is the main remedy, with which revaccination must be combined. By these two measures the danger and fatality of variola are reduced to the narrowest limits.

CAUSÉ makes a series of good proposals for securing the efficiency of vaccination. He also urges the propriety of making revaccination, at intervals of ten years, compulsory.

Of 241 pupils in the Lyceum at Versailles, 63, on revaccination, had genuine, and 78 spurious, pustules. REMILLY believes revaccination in lyceums to be highly necessary.

The mortality in Ireland during the ten years preceding the 30th of March, 1851, was 1,360,000. Of these, 38,700 were due to smallpox. This gives an average of 29 deaths from smallpox in 1000 deaths from all causes, which is nearly double the proportion of deaths from smallpox occurring in London, and from ten to fifteen times greater than the mortality from this disease in many European states. M'DONNELL discusses the causes of this state of affairs, and fears it will be long before it can be amended.

WINTER is an antagonist, "sub rosa," of vaccination. He wants the government of Hanover to abandon compulsion in vaccination. The medical council properly replied to his request to put certain questions to be answered officially by all medical practitioners of Hanover, that long and favorable experience had sanctioned the practice and compulsion of vaccination.

7. APPARENT DEATH. INSPECTION OF THE DEAD.

Koschate.—On the Certain Signs of Death and Apparent Death, and on the Means for preventing Premature Burials. *Breslau*, L. U. Kern.

Collongues.—Application of the Dynamoscope for ascertaining the Occurrence of Death. Memoir presented to the Academy of Sciences. (*Gaz. Méd. de Paris*, No. 9.)

The disquisition of KOSCHATE reveals no new or striking intelligence.

COLLONGUES has constructed a peculiar instrument of auscultation, with which, in many persons only just dead, a peculiar noise or murmur "bourdonnement," is heard. When complete somatic death has taken place, this murmur ceases. He says that in various cases of apparent death, in which the heart had ceased to beat, but

in which this murmur was yet apparent, he succeeded in restoring life. Now that the dynamoscope is invented, Collongues says that the dead-houses in Naples and Germany may be abolished.

8. PROSTITUTION.

Parent-Duchâtelet.—Prostitution in Paris, considered in its relation to Public Hygiene, Morals, and the Administration. Third edition, completed by TREBUCHET and POIRAT-DUVAL, Chefs de Bureau à la Préfecture de Police. With an Account of Prostitution in the principal Towns of Europe. With Maps and Tables. *Paris*, 2 vols., Baillière and Son.

Sanger.—The History of Prostitution; its Extent, Causes, and Effects throughout the World. *New York*. 8vo, pp. 683.

We cannot give an extract of this comprehensive and, so far as France is concerned, no doubt, accurate work. It gives an account of one of the saddest aberrations of the natural impulses of man, and reveals social conditions of an appalling nature.

But the information relating to England, and particularly to London, contained in this volume is of a very unreliable nature. The following passage will, no doubt, be considered a curiosity: "In the quarter [of London] called Fleet Ditch, where nearly all houses have brothels on the ground-floor, there is an enormous aqueduct, which stands in communication with the Thames. Into this aqueduct the proprietors of brothels, or their helpmates, throw the dead bodies of their victims, which are carried by the water far out into the river, so that it becomes impossible to ascertain where the murder has been committed." Some more material of this kind is heaped together in the production of SANGER. Its first part is a mere abstract of the work of PARENT-DUCHATELET. It is, moreover, as the reviewer in the 'Medical Times and Gazette' for April 2d, 1858, expressed it, "an accumulation of all the dirt and filthiness which may be gleaned by diligent search in the storehouses of antiquity." The last 230 pages are devoted to the history of prostitution in the capital of the New World. They are full of the most astounding and evidently groundless assertions. Thus, the average duration of life of a New York prostitute is said not to exceed four years from the time she begins her career, an assertion which is as ridiculous as the assertion of Parent-Duchâtelet, that at Edinburgh the average age attained by prostitutes was from twenty-two to twenty-five years, which only few outlive.

State medicine requires correct information of the actual state of affairs, and can dispense with accounts of the bestialities of by-gone times. The social evil is only indirectly a medical subject, viz., as a cause of virulent and dire disease. So long as statesmen and the legislature refuse to deal with this subject, which daily assumes more gigantic dimensions, we cannot hope, by professional exertions, even to register accurately the facts, much less to remedy the consequences or to stay the practice.

INDEX.

N.B.—References to the contents of divisions and sections are printed in italics. The numbers of the pages are arranged in two columns; the first column refers to the titles of the works and papers, the second to the reports on them.

- | | |
|--|---|
| <p><i>Abdomen, intestinal obstruction</i> . . . 286</p> <p><i>Abdomen, malformation of (Shearer)</i> . . . 416, 421</p> <p>— mortal wounds of (Toulmouche) 426</p> <p>— penetrating wound of (Porter) . 306, 307</p> <p><i>Abdominal wall, deficiency of (Sedgwick)</i> . . . 416, 421</p> <p><i>APEGG, poisoning by arsenic and strychnia</i> . . . 434, 436</p> <p><i>ABERLE. See Theile.</i></p> <p><i>Abortion, statistics of (Clay)</i> . . . 364</p> <p>— with albuminuria and convulsions (Broadbent) . . . 385</p> <p><i>Abortion, criminal</i> . . . 455</p> <p><i>Abortion (Broughton, Casper, Darien, Maschka, Tardieu)</i> . . . 455-6, 456</p> <p><i>Abscess of brain (Chaplin)</i> . . . 395</p> <p>— in larynx, after typhoid fever (Schiele) . . . 220</p> <p>— of liver (Jackson) . . . 253, 257</p> <p>— pharyngeal, in children (Bokai) 404, 406</p> <p>— post-pharyngeal, in children . 235, 242</p> <p>— recto-vaginal (Breslau) . . . 377</p> <p>— bone, in lower jaw (Nussbaum) 311, 316</p> <p><i>Absorption</i> . . . 74</p> <p><i>Absorption, relative, in animals, fasting and digesting (Köhler)</i> . . . 74, 76</p> <p>— of fat (Haidenhain) . . . 74, 76</p> <p>— by the lacteals (Meder) . . . 74, 76</p> <p>— cutaneous (Waller) . . . 74</p> <p><i>Acid, benzoic, influence on metamorphosis of tissue (Kletzinsky)</i> . . . 95, 103</p> <p>— carbonic, expiration of (Meyer) . 62, 65</p> <p>— cynuric, in urine of the dog (Liebig) . . . 94, 100</p> <p>— hippuric, in man (Mack, Weissmann) . . . 94, 100</p> <p>— do. in urine of herbivora (Hallwachs, Weissmann) . . . 94, 100</p> <p>— hydrocyanic, action of (Kiedrowski) . . . 105, 110</p> <p>— oxalic, origin of (Neubauer) . . . 95, 101</p> <p>— phosphoric, excretion of (Hammond) . . . 95, 102</p> <p>— pyrophosphoric, as reagent for albumen (Gigon) . . . 95, 103</p> <p>— succinic, transit into the urine (Hallwachs) . . . 94, 100</p> | <p><i>Acid, uric (Schiff)</i> . . . 94, 100</p> <p>— do., proportions in urine (Seller) 94, 97</p> <p>— do., behaviour towards Fehling's liquid for detecting sugar (Babo) . . . 94, 100</p> <p>— do., absence of, in urine of yellow fever (Porcher) . . . 95, 103</p> <p><i>Aconite, cases of poisoning by</i> . . . 433</p> <p><i>Actiniæ, how they kill their prey (Waller)</i> . . . 104, 106</p> <p><i>ADAMS, fracture of neck of femur</i> . 311, 315</p> <p>— lithotomy in children . . . 295, 296</p> <p>— separation of epiphysis of tibia and fibula . . . 311, 316</p> <p>— surgical openings into knee-joint 312, 319</p> <p>— foetal auscultation . . . 338</p> <p><i>ADAMS and WARD, strangulated inguinal hernia</i> . . . 288, 291</p> <p><i>Adder, poison of (Weston)</i> . . . 104, 105</p> <p><i>Addison's disease (Wilks)</i> . . . 254</p> <p><i>ADDISON and FORSTER, stricture of œsophagus from corrosive fluid; gastrotomy</i> . . . 279, 280</p> <p><i>Adipose tissue found in blood-stains (Robin)</i> . . . 428, 431</p> <p><i>ÆBY, symphysis pubis and ossification of cartilage</i> . . . 4</p> <p>— do. 14, 19</p> <p><i>After-pains in parturition (Willis)</i> . 385</p> <p><i>Age, old, effect of, on the vital capacity (Geist)</i> . . . 67</p> <p><i>Ague, connection of heat of body with excretion of urea, &c., during (Ringer)</i> . . . 94, 99</p> <p>— do. 141, 177</p> <p>— at Bodenwöhr (Schramm) . . . 140, 153</p> <p>— at Lemberg (Duchek) . . . 140, 156</p> <p>— and phthisis, antagonism of (Green) . . . 220, 225</p> <p>— do. (Peacock) . . . 220, 227</p> <p><i>AIKEN, exostosis of the orbit</i> . . . 327, 331</p> <p><i>Air, introduction of, into cellular tissue and peritoneum (Leconte)</i> . . . 77, 79</p> <p><i>Air-passages</i> . . . 281</p> <p><i>ALBERT, fucus amylaceus</i> . . . 143</p> <p>— defence of forensic physicians . 422, 424</p> <p>— murder of a mother . . . 425</p> <p><i>Albinism in the equatorial regions (Delacouse)</i> . . . 415, 418</p> |
|--|---|

- Albumen, animal, digestion of (Arnold) 69, 72
 — of cow's milk (Trommer) . 78, 81
 — non-existence of, in normal urine (Becquerel) . 95, 103
 — action of pancreatic juice on (Keferstein) 68, 70
 — uncertainty of chloroform in detecting (Becquerel) . 95, 103
 — inferiority of pyrophosphoric acid as reagent for (Gigon) . 95, 103
 — vegetable, digestion of (Coopmanns) 69
 Albuminous bodies, digestion of, by pancreas (Corvisart) . 69, 70
 Albuminuria (Beckmann) . 125
 — as symptom of kidney disease (Parkes) 253, 258
 — sulphate of quinine in (Anizon) 407, 407
 Alcohol, case of poisoning by . 433
 Alcoholic intoxication, chronic (Marcet) 139, 154
 ALDERSON, acute purpura . 266
 ALEXANDER, suppression of urine . 253, 257
 Alimentary canal, peripheral ganglia in (Remak) . 37, 46
 ALISON (Scott), intensification of sound 56, 57
 Alkalies or acids in stomach disorders (Wells) 237, 252
 Allantoid fluids, composition of (Majewski) 78, 82
 Allantoine, presence in the urine (Köhler) 94, 101
 Allarton's operation in lithotomy (Brown, Browne) . 295, 296
 — for foreign body in bladder (Browne) 295, 297
 ALLIX, congenital hydrocephalus . 416, 421
 ALMEIDA, new stereoscope . 55
 ALONSO, intra-uterine pregnancy of twenty-two months . 355, 360
 ALTHAUS, medical electricity . 138, 144
 — action of electric current on the motor nerves and muscles . 35, 45
 — do. . 138, 144
 Alum in membranous angina (Loiseau) 219, 223
 AMBLARD, lactation . 393
 AMBROSOLI, preserving anatomical preparations by glycerin . 2, 6
 AMELUNG, poisoning with sulphuretted hydrogen . 105, 110
 AMMON, duties of mother . 393, 394
Amnii (liquor) . 78
 Amnii, liquor, composition of (Majewski) 78, 82
 Amnion, dropsy of (Ramsbotham) . 351, 352
 Amputation . 276
 Amputation, causes of death after (Burow) 276, 276
 — by diacclasis (Maisonneuve) . 275, 275
 — partial, of the hand (Burgess, Eager, Solly) . 276, 277
 — at carpo-metacarpal articulation (Sedgwick) . 276, 277
 Amputation at shoulder-joint, in epithelial cancer (Flower) . 276, 276
 — do. in malignant tumour (Johnson) . 276, 277
 — at hip-joint (Clement) . 276, 277
 — of right leg, in epithelioma (Cock) 276
 Anæmia idiopathica (Wilks) . 254
 — lymphatica (Pavy) . 254, 261
 Anæmic murmurs at apex of heart (Reid) 209, 211
Anæsthesia . 110
 Anæsthesia, production of (Azam) . 181, 203
 — local, by voltaic narcotism (Richardson, Waller) . 110, 111-12
 — and site of diseases of cerebrum (Türk) 181, 197
 — of the hysterical (Briquet) . 180, 188
 — of olfactory nerve (Franque) . 179, 185
 — painful, of fifth nerve (Barwinkel) 180, 193
 Anæsthetics (Baehrens, Daub, Geutebruck) 111
 Anæsthetic, carbonic acid gas as an (Herpin, Ozanam) . 111, 113
 Anasarca of fœtus (Clay) . 414, 417
 — renal (Fuller) . 255
 — albuminous, tannin in (Garnier) 253, 256
 Anatomical subjects, on preserving (Budge) 2, 6
 — do. with glycerin (Ambrosoli) . 2, 6
 Anatomy, cyclopædia of (Todd) . 1, 5
 — contributions to (Eckhard) . 1, 5
 — relation to physiology and pathology (Knox) . 1
 — special . 1
 — do. (Perrone) . 2
 — surgical, homolographical (Le Gendre) 1
 — pathological (Wilks) . 124, 126
 — topographical (Hyrtl) . 1, 5
 — do. from sections on frozen bodies (Le Gendre) . 1
 — comparative (Auzeux, Edwards) 2, 10
 ANCELON, dysphagia . 235
 ANCELOT, signs of life in new-born infants 455, 457
 ANDREWS, vaccine lymph . 410
 Aneurism, cases of (Reid, Robinson) 209, 216
 — rupture of (Gairdner) . 210
 — axillary, deligation of subclavian (L. Clarke, Stanley) . 306, 307
 — of left carotid artery (Patterson) 306, 307
 — of the cerebral vessels (Gull) . 180, 196
 — femoral, cured by pressure (Green) 306, 308
 — of hepatic artery . 211
 — of the orbit (Vanzetti) . 327, 330
 — of ophthalmic artery; compression (Gioppi) 327, 330
 — popliteal, treated by compression (Childs, Teale) . 306, 308
 — do. compression and ligature (Ward) 307, 309
 — do. treated by flexions and compression (Pemberton) . 307, 308

- Aneurism, popliteal, ligature of femoral artery 307, 309
 — do. recovery without ligature (Bone) 306, 308
 — of thoracic aorta (Gairdner) 210
 — of descending thoracic aorta (Turner) 208, 211
 Angina, membranous, tannin and alum in (Loiseau) 219, 223
 — pectoris (Moorhead, Mushet) 209, 214-17
 — pharyngea of childhood (Wertheimer) 397, 400
 Animal fluids (Bernard) 3, 10
 Animals, growth, &c., of, influence of light on (Beclard, Dobell) 117, 120
 ANIZON, sulphate of quinine in albuminuria 407, 407
 ANSELMIER, narrowing of vagina from cautery 381, 383
 — sore nipples 383, 384
 Anthiar and anthiarine poisons (Pelikan) 105, 109
 Antiar, upas (Koelliker) 448
 Antimony, poisoning by (Lassaigne) 434, 434
 Anus, anatomy of (Linhart) 20
 — prolapsus of (Guersant) 405, 406
 — do. strychnine in (Duchaussoy) 405
 — atresia of (Friedlander, Krieger, Senftleben) 415, 419
 — artificial (Bezzonico) 288, 291
 — do. in new-born child (Littre) 405
 Aorta, abnormal (Panas) 27, 33
 — ulceration of (Talley) 209, 213
 — thoracic, aneurism of (Gairdner) 210
 — do. descending, aneurism of (Turner) 208, 211
 Aortic branches, abnormal number of (Hyrtl) 27, 33
 — system, increase of pressure in (Beckmann) 125, 132
 Apoplexy, spontaneous and from injury (Wilks) 180, 195
 — of spinal cord (Duriau) 181, 201
 — infantile (Wythes) 179, 184
 Appendix vermiformis, perforation of (Mer- tens) 405
 APPIA, surgeon at the ambulance . 273, 274
 ARAN, arsenious acid in chorea . 181, 199
 — statics of uterus 367, 369
 — uterine diseases 365
 — caustic pencil in uterine affections 372, 375
 — enemata in uterine catarrh . 372, 374
 ARATA, tying of umbilical cord . 455, 457
 ARNAULT. See *Houel*.
 ARNOLD, human vital capacity . 67
 — action of thoracic muscles in respiration 62, 66
 — irritability of heart and other muscles 20, 22
 — effect of food on the secretion of bile 83, 88
 — digestion of animal albumen . 69, 72
 — renal affections in scarlet fever . 407, 407
 ARNOLD, physiological institution at Heidelberg 2
 Arsenic, cases of poisoning by, analyses, &c. (Abegg, Blondlot, Christison, Huber, Odling, Orfila, &c.) 434, 435-6
 — the Bradford poisonings by . 434, 435
 Arsenious acid in treatment of chorea (Aran) 181, 199
 Arson, legal responsibility of persons accused of (Kürner, &c.) 458
 Arteries, sounds of, in health (Da Costa) 209, 213
 — parts of nervous system regulating contraction of 67
 — rupture of membrane in (Wallmann) 427, 430
 — do. internal and middle coats of (Scott) 25, 28
 — common carotid, ligature of (Stanley) 306, 307
 — cerebral, emboli in (Spring) . 180
 — coronary, laceration of (Feigneaux) 209, 218
 — femoral, wound, &c. (Bulteel) . 307, 309
 — iliac, ligature of (Meier) . 310, 313
 — meningeal, perforating branches of (Hyrtl) 27, 33
 — pulmonary, blowing-sound in (Da Costa) 209, 213
 — do. congenital closure of (Meyer) 415, 418
 — do. embolia of (Keyser) 220, 229
 — do. embolic plugging of (Charcot) 385, 388
 — do. occlusion after parturition (Mackinder) 385, 388
 — right pulmonary, fibrinous concretion in (Keyser) 220, 225
 — pyloric, death from erosion of (Ranking) 236, 248
 — subclavian, abnormal distribution of (Fischer) 27, 33
 — do. ligature in axillary aneurism (L. Clarke, Stanley) 306, 307-8
 ARTMANN, food 462, 462
 ASCHE, function of the pneumogastric nerve 39
 Ascites, ætiology of (Oppolzen) . 236, 246
 — in new-born child (Virchow) . 414, 417
 — recovery after paracentesis (Banks) 235, 240
 — terminated by serous flow from the breasts (Kinn) 253, 255
 Asphyxia, M. Hall's method in (Pickford) 397, 400
 ASSANIS, croup 399
 Assaults, immoral (Tardieu) . 452, 453
 Assimilation, defective, in infants (Routh) 403, 405
 Asthma, ætiology, &c. (Salter) 219-20, 222
 — treatment (Salter) 220, 226
 — do. (Trousseau) 219, 223
 — do. by sedatives (Salter) . 221, 232
 — consequences of (Salter) . 221, 232
 — thymic, no such disease 127

- Asthma, thymic, (Schottin) . 397, 400
 — Millar's (Plagge) . 397, 400
 Ataxie locomotrice progressive (Duchenne) 181, 200
 ATCHERLEY, nitric acid in whooping-cough 399, 403
 ATKINS, ruptured uterus . 342, 347
 Atresia, congenital, of the face (Gressy) 415, 419
 — of anus (Krieger, Senftleben) . 415, 419
 — of uterus and vagina (Rokitansky) 415, 419
 Atrophy, acute, of the liver (Pleischl) 254, 259
 — progressive muscular, syphilitic (Rodet) 207, 207
 Atropine, poisoning by (Holthouse, Leistner, Seaton) . 437, 438
 AUBER, puerperal fever . 386
 AUBERT, accommodation of the eye 51, 54
 Auricle, right, rupture of (Cregeen) 209, 215
 Auscultation, foetal (Adams, Frankenhauser) 338, 339
 AUSTIN, general paralysis . 203
 AUZEUX, comparative anatomy and physiology . 2
 AVELING, metal sutures . 278, 278
 — rupture of uterus . 342, 347
 AZAM, production of anæsthesia . 181, 203
 BAART, phlebothrombosis . 385, 388
 BABO and MEISSNER, behaviour of uric acid towards Fehling's liquid for detection of sugar . 94, 100
 BACON, elimination of lead from the system 269
 BAEHRENS, anæsthetics . 111
 BAGOT, laceration of perinæum . 381, 382
 BAHR, accommodation of the eye . 51, 54
 BAIN, poisoning by chloroform . 439, 439
 BAIZEAU, perforation of palatal vault 278, 279
 BAKEWELL (H.), retroversion of uterus
 BALL. See *Charcot*. [342, 345
 BALLARD, diphtheria . 140, 163
 — light, cause of purulent ophthalmia of infants . 395, 397
 — diseases of infants . 403, 405
 BALLOT, epidemic jaundice . 254
 Balneology, report on (Flechsigg) . 264
 BAMBERGER, saccular dilatation of bronchi 220
 — reflex saltatory convulsions . 180, 187
 — variola in combination with other diseases 139, 150
 — do. combined with syphilis . 140, 155
 — perforation of vermiform appendix 235, 243
 BANG, forms of giddiness . 179, 186
 — tuberculous meningitis . 394, 396
 BANKS, ascites, recovery after paracentesis 235, 240
 BARBOT, typhoid fever in children . 413
 BARCLAY, bloodletting in acute disease 139, 145
 BARCLAY, tapeworm from use of raw meat 113, 114
 BARDELEBEN, influence of gastric juice on the transformation of starch into sugar 69, 72
 BARENSPRUNG, porrigo decalvans . 264
 — prurigo . 265, 268
 Barium, chloride of, poisoning by (Walsh) 439, 439
 BARKER, hygiene of infants . 392, 394
 — chronic laryngitis . 281, 282
 — vomiting in pregnancy . 386, 390
 — emanations from drains . 468, 468
 — and SIMON, diphtheria, tracheotomy 281, 283
 BARKOW, on male and female urethra 96, 104
 BARLOW, heart disease . 209, 216
 — enlargement of the heart . 209, 217
 BARNES, Royal Maternity Charity 364
 — obstruction by meconium . 405, 406
 — placenta prævia . 351, 352
 — retroversion of gravid uterus . 341, 345
 BAROZZI, eclampsia puerperalis . 385, 389
 Barracks, mountain sites for, in hot climates (Milroy) . 469, 470
 BARRALIER, hydrochlorate of ammonia in nervous headache . 180, 192
 BARTHEZ, chlorate of potash in croup 398
 — injection of chlorate of soda . 148
 BARTON, mammary tumour . 384
 BARWELL, nutrition, inflammation, and ulceration of articular cartilage . 14, 18
 BARWINKEL, painful anæsthesia of the fifth nerve . 180, 193
 BASHAM, renal dropsy, suppurative form of morbus Brightii . 253, 258
 — identity of scarlatinal dropsy with acute morbus Brightii . 259
 — retroversion of uterus . 342, 345
 BASSLINGER, lacteals of birds . 74, 76
 Baths, influence on the excretions . 264
 — Driburg, in pregnancy . 384, 387
 — Turpentine vapour, in gout, &c. (Macario) 269, 270
 Batteries, effects of different (Rosenthal) 36, 46
 BATTEY, vesico-vaginal fistula . 381, 382
 BATTY, stricture of œsophagus . 236, 250
 BATTYE, on a sixth sense . 58, 61
 BAUMGARTNER, case of one eye regaining power of distinguishing colours before the other . 52
 BAZIN, parasitic cutaneous affections 409
 BEALE, urine, urinary deposits and calculi 94, 98
 — blue deposit in urine . 94
 — urinary calculi, and dumb-bell crystals of oxalate of lime . 94, 98
 — straight vessels in the pyramids of the kidney . 94, 98
 BEAU, hypertrophy of heart in pregnancy 209, 211
 — papillæ of the tongue . 58

- BEAU, whooping-cough . . . 399, 403
 — quinic intoxication in rheumatism 141, 174
 — quinine in idiopathic peritonitis 236, 247
 — powder of rue in metrorrhagia . 371, 374
 BEAUVAIS, uva ursi in parturition . 362, 363
 BECKE, death by chloroform . 111
 BECKER, cephalotripsia . . 356, 361
 BECKMANN, experimental pathology 125
 — pressure in aortic system and albuminuria
 125, 132
 — cardiac hypertrophy . . . 125
 BECLARD, influence of light on animals
 117, 120
 BECQUEREL, non-existence of albumen in
 normal urine 95, 103
 — dysmenorrhœa 371
 — peri-uterine hæmatocele . 377
 — chronic inflammation of uterus . 372, 375
 — neuralgia of uterus . . . 372, 374
 BEDDOES, mortality in Australia and Eng-
 land 268, 270
 Beer, control over purity of (Krügelstein)
 476, 477
 BEHIER, on dry cupping in typhoid 148
 — Böttger's reagent for detecting sugar in
 diabetic urine 125, 133
 — puerperal fever 386, 391
 BEHR, fatal lesion of child in utero 455, 457
 BEHREND, belladonna in irritable bladder
 254, 260
 — cod-liver oil in chronic eczema . 409, 410
 — chronic hoarseness of children . 398, 401
 — spina bifida 408
 — do. cure by collodium . 416, 420
 — and LEIBEN, employment of sugar in
 diseases of infants . . . 235, 240
 BEINS, action of galvanism . . 36
 BELL, position of child's head in labour
 364
 Belladonna, administration of (Fuller) 181
 — in chronic diuresis (Willshire) . 253, 257
 — in irritable bladder (Behrend) . 254, 260
 — in involuntary evacuations of children
 (Bercieux) 235, 241
 — protective against scarlet fever (Morris)
 409
 — poisoning by 437-8
 BELLASPECT, croup 399
 BENDZ, military ophthalmia in Danish army,
 1851 325
 BENNET, pneumonia in childhood . 399
 BENNETT, poisoning by strychnia . 446, 446
 BENVENISTI, retrograde metamorphosis of
 sugar 82, 87
 Benzoic acid, influence on the metamorphosis
 of tissue (Kletzinsky) . . . 95, 103
 BERARD and COLIN, extirpation of the pan-
 creas 69, 71
 BERAUD, termination of the longitudinal
 fibres of the rectum 20, 23
 BERCHON, yellow fever and marsh fevers
 139, 147
 BERCIOUX, belladonna in involuntary evacua-
 tions of children 235, 241
 BERCIOUX, belladonna in involuntary mictu-
 rition 407, 408
 BEREND, iodine injections in bony changes
 311, 317
 BERG, suicide in Sweden 451, 451
 BERGERON, ulcerative stomatitis of soldiers
 236, 249
 Beriberi (Heymann) 141, 176
 BERLIN, cells containing blood-corpuscles
 4
 — striated muscular fibres . . . 20
 — structure of cerebral convolutions 37
 BERNARD, animal fluids 3, 10
 — nervous system 35, 42
 — intervertebral ganglia 39
 — amount of electricity necessary to excite
 different tissues 36
 — oxygen in the venous blood of glands 77
 — variation of colour in the venous blood
 of glands 77, 80
 — do., influence of the nerves on . 77, 80
 — dysphagia 235
 — fever, a nervous phenomenon . 269, 272
 — on irritability 36, 46
 — superfœtation 414
 BERNAYS, disinfection of the Thames 468, 469
 BERTHELOT, transformation of sugar into
 "immediate principles" . . . 82, 87
 BERTIN, syphilis in pregnant women 385, 388
 BERTULUS, hepatitis 254, 260
 — quinine in typhoid fever . . 148
 BETZ, cauliflower excrescence of uterus
 373, 375
 — hyperæsthesia of rachitic children 395, 397
 — intus-susception 236, 245
 — do. 286, 287
 BETZOLD, on urari 448, 449
 BEZOLD, chemistry of skeleton . 13, 16
 — physiology of the heart's action 26, 31
 — crossing of nerve-fibres in the cord 38, 48
 BEZZONICO, artificial anus; cure . 288, 291
 BICHAT (Xavier) sequel to life of (Knox) 1
 BIERBAUM, encephalo-hæmatoma verum
 400, 403
 — diseases of kidneys 407, 407
 BIGNAMI, eclampsia 385, 389
 Bile, function of the 5
 — passage of substances from blood into
 (Mosler) 83, 88
 — effect of food on secretion of (Arnold)
 83, 88
 — analysis of effect of food on . 88
 — influence of mercury on secretion of (Scott)
 253, 257
 — of the shad-fish, analysis . . 89
 — of the whale (Schlossberger) . 83, 89
 BILLARD, mental state of A. S. . 459
 BILLI, twisting of cord 414, 417
 BILLROTH, on epithelium 4
 — nerves of the intestines . . . 37, 46
 — gunshot wounds 273, 273
 — ossification in exostoses, &c. . 126-7
 BIRCH, oxygen as a therapeutical agent
 269, 272

- Birds, lacteals of (Basslinger) . 74, 76
 BIRKETT, compound fracture of skull 311, 316
 — do. . 426, 429
 — injury of the spine . 311, 317
 — new growths or tumours . 320, 320
 BIRKNER, influence of the water in the nerves . 35, 44
 — poisoning of animals with phosphorus 444, 445
 BIRNBAUM, angular curvature in lumbar region . 341, 344
 — artificial premature labour . 354, 357
 Births, plural (Spondli) . 348, 349
 — premature (Elsaesser) . 453, 454
 — unusual case of twins (Goldberg) 414
 — triplets (Domerc, Elsässer, Fennerley, Gasne, Marx) . 348, 349
 — four children at birth (Martin) 348, 349
 BISCHOFF, discourse on Prof. Müller 3
 — difference between man and beast 2
 BISHOP, emphysema during labour 338, 340
 BISSILL, inversion of uterus . 368, 371
 BLACK, ovarian dropsy, iodine . 377, 379
 Bladder, urinary (Barkow) . 96, 104
 — involuntary muscular tissue of (Ellis) 19, 21
Bladder, urinary, diseases, injuries, &c. 293, 298
 Bladder, urinary, cancer of (Goodwin) 253, 258
 — extrophia of (Restin) . 416
 — injury of (Cusack) . 299, 300
 — inversion of (Voss) . 294, 294
 — irritable, belladonna in (Behrend) 254, 260
 — prolapsus of mucous membrane of (Patron) 293, 293
 — do. during labour (Carson, Ramsbotham) . 341, 344
 — rupture of (Gillespie) . 299, 299
 — glass tube in (Coulson, Cutler) 295, 297-8
 — substances discharged from (Farre) 113, 115
 — puncture of, for retention of urine (Paget) 298, 299
 — do. through rectum (Holt, Tatum) 298, 299
 BLAIR, vicarious menstruation . 371, 373
 BLANDIN, first dentition . 404
 BLEASE, post-partum hæmorrhage 342
 Bleeding from the ear in a child (Morvan) 395
 — from lingual veins (Mertivier) . 235, 241
 — in acute diseases (Barclay) . 139, 145
 — in diseases (Markham) . 138, 144
 — in acute hydrocephalus (Harvey) 395, 396
 — and purging in hydrocephalus (Harvey) 180, 191
 — local, in pregnancy (Silbert) . 362, 363
 Blindness, colour (Herschel) . 50, 52
 BLOEFELD, state medicine at University of Kasan . 463, 464
 BLONDEAU, cholera infantum . 404
 — obstruction of urethra . 301, 303
 BLONDEL, public assistance in hygiene 466, 466
 BLONDLOT, acid of gastric juice . 69, 71
 BLONDLOT, artificial gastric fistula 69, 71
 — analysis of arsenic, Marsh's method 434, 435
 Blood, experiments on (Brown-Séguard) 27, 32
 — physiology of (Heidenhain) . 27, 31
 — table of average quantity, in fish, amphibia, birds, and mammalia . 32
 — chemical analysis (Heusner) . 27
 — difference between arterial and venous 32
 — absorption and exhalation of gases by (Fernet) . 62, 65
 — cause of movement of (Gunning) 26, 30
 — movement and stasis of (Gunning) 124, 128
 — retrograde movement in large veins near the heart (Busch) . 26, 30
 — circulation of (Marey) . 26, 29
 — do. hydraulic experiments (Marey) 26
 — pressure of (Moilin) . 26
 — passage of substances from, into the bile (Mosler) . 83, 88
 — relation to ozone (His) . 27
 — colour of (Brachet) . 27
 — colour of goat's, action of gases on (Chevreul) . 27, 33
 — venous, red colour of (Gluge) . 77, 80
 — do. of glands, variation of colour in (Bernard) . 77, 80
 — do. influence of nerves on do. . 77, 80
 — do. quantity of oxygen in (Bernard) 77
 — carotid, temperature of (Ludwig) 78, 81
 — indician in (Carter) . 94, 97
 — pathological variations of fibrin in (Parchappe) . 125, 132
 — initial phenomena of determination of (Ranzi) . 124, 130
 — coagulation of (Lister) . 25, 29
 — do. (Hecht) . 27
 — vomiting of, from ulcers in duodenum (Liljeborn) . 236, 247
 Blood-corpuscles, number of (Welcker) 27, 31
 — cells containing (Berlin) . 4
 — action of salts on (Botkin) . 26, 30
 — red, influence on ozone (Schönbein) 27, 33
 — white, in cachectic diseases (Gubler) 209, 216
 — in the embryo, dividing of (Radlkofer) 4
 — of cryptobranchus japonicus (Harting) 28, 34
 Blood-crystals (Buchner) . 28, 34
 — formation of . 10
 — forensic import (Bryek) . 427, 430
 Blood-discs, granulated (Pollock) . 28, 34
Blood-glands . 83
 Blood-stains, microscopic character, &c. (Coulter, Choulette, Maschka, Robin) 427, 430-1
Blood-vessels . 25
 Blood-vessels, contractility of (Vulpian) 26, 30
 — of the lung (Waters) . 25, 28
Blood-vessels, wounds and diseases of 306
 Blood-vessels, transverse wounds of (Savory) 25, 28
 — popliteal, rupture (Hawkins) . 307, 309
 Blowing-sound in pulmonary artery (Da Costa) . 209, 213

- BLUME, entozoa found in man . 114
 BLUMLEIN, intention of wounding 424, 428
 Blyth's translation of Liebig on chemistry 3
 BOCHDALEK, abnormality of pulmonary veins 415, 418
 BOECK, syphilization . 141, 177
 BOECKER, injuries; inability to work 422, 424
 — legal responsibility . 458, 460
 BOEFELD, vaccination or inoculation 480, 480
 BOGG, spontaneous evolution . 348, 350
 BOGGE, case of diphtheria . 140, 166
 BÖHM, bony nucleus in epiphysis of thigh-bone . 455, 456
 BOHN, croup epidemic . 398, 401
 Boils, treatment of (Durrant) . 264, 266
 BOINET, urethrotome . 300, 302
 BOKAI, cephalo-hæmatomata . 400, 403
 — pharyngeal abscess . 404, 406
 — post-pharyngeal abscesses in children 235, 242
 BONAFOZ-LAZERMES, capillary bronchitis 219, 222
 Bone, formation of (Rainey) . 14, 18
 — chemistry of (Bezold) . 13, 16
 — earthy constituents of young (Recklinghausen) . 13, 16
 — development of (Muller) . 13, 17
 — nutrition of (Budge) . 13, 16
 — laws of the forms of (Fick) . 13, 16
 — artificial production, by transplantation of periosteum (Ollier) . 13, 15
 Bones of the ear and membrana tympani (Bonnafont) . 56, 57
 — human lachrymal (Luschka) . 13, 16
 — peculiar supra-scapular (Messer) 416, 421
 — abnormal (Schwegel) . 13, 17
Bones, diseases and injuries of . 310
 — *diseases of, in children* . 408
 Bones, diseases requiring operation (Hamilton) 310, 314
 — rickety (Muller) . 13, 17
 BONE, popliteal aneurism, recovery without ligature . 306, 308
 BONFILS, oil of turpentine in puerperal affections . 387
 BONIFAS, spontaneous generation . 117
 BONNAFONT, certain conditions of the ear and eye . 56
 — bones of the ear and membrana tympani 56, 57
 BONNEFIN, on passing electric currents through the nerve-centres . 36
 BONNET, diseases of joints . 310, 314
 — stretching and cauterization in inflamed joints . 310, 314
 — cauterization in retroversion of uterus, 367, 369
 — death after tracheotomy in croup 399
 BONORDEN, cure of prolapsus . 367, 370
 BORELLI, contraction of fingers after injury of nervous filament . 331, 334
 BOTKIN, action of salts on living blood-corpuscles . 26, 30
 BÖTTCHER, nutrition and decay of muscular fibres . 20, 24
 Böttger's reagent for detecting sugar in diabetic urine (Behier) . 125, 133
 BÖTTGER, sugar in urine . 254, 259
 BOUCHARDAT, diabetes . 254, 262
 BOUCHUT, anæsthesia, symptom of croup 399, 402
 — coryza of infants . 398, 401
 — mortality of croup in Paris . 398, 402
 — tubage of larynx in croup . 398
 — intermittent fever in childhood 413
 — rachitis . 408
 — and EMPIES, albuminuria in croup 398, 402
 BOUDIN, deaths from diseases in Belgium 465
 BOUISSON, pulsating tumours of bone 310, 313
 BOURGADE, jerking respiration . 219, 224
 BOURGUIGNON, chorea . 179, 184
 — glycerine ointment for the itch 264
 BOURJEAUD, mushroom pessary . 367
 BOURSIER, eclampsia . 385, 389
 BOUVIER, diseases of organs of motion in children . 408-9
 BOVERO, contractions of rectum resulting from syphilis . 237, 250
 BOWMAN, medullary tumour of clavicle 310
 BRACHET, colour of the blood . 27
 BRADY, action of glonoine . 178, 182
Brain, spinal cord, &c., diseases of, in children 394
 Brain, chemical composition (Muller) 83, 91
 — connective tissue in (Leubuscher) 124, 127
 — microscopic examination of, while fresh (Jacubowitsch) . 37, 46
 — diseases of, treated by potass. iod. (Coldstream) . 181, 198
 — entozoon in (Brittan) . 179, 182
 — parasites in (Davaine) . 38
 BRAINARD, iodine in hydrocephalus 394, 396
 BRAME, deaths from prussic acid 445, 446
 BRANCO, stricture of vagina . 341, 344
 BRAUN, induction of labour by catgut 353, 356
 — craniotomy . 355, 361
 — hydrorrhœa gravidarum . 385, 388
 BRAUW and BROERS, ligature of limbs in intermittent fever . 139, 150
 Bread, medico-legal inspection (Krügelstein) 473, 473
 — of quick-grass and potatoes . 473, 474
Breast, diseases of . 383
 Breast, removal of (Hess) . 383, 384
 BREITHAUPT, displacements of intestine cause of chronic constipation, &c. 235, 242
 Breslau, Physiological Institute of (Reichert) 2
 BRESLAU, recto-vaginal abscess . 377
 — vesico-vaginal fistula . 381, 382
 — hypertrophy of nymphæ . 381, 382
 — prolapsus from fibroid tumour of cervix 368
 — ruptured perinæum . 381
 — scirrhus of uterus . 373, 375
 — toxic effects of coal gas . 385, 389

BRESLAU. See *Ramis*.

- Bright's disease (Oppolzer) . 254
 — forms and stages of (Johnson) . 255
 — two distinct conditions of kidney giving rise to (Dickinson) . 253, 256
 — with amyloid degeneration of Malpighian bodies (Harris) . 255
 — suppurative or non-tubular form (Basham) . 253, 258
 — symptomatic dropsy of (Roeser) . 253, 259
 — treatment of . 253, 259
 — treatment recommended by a French author . 259
 — permanent recovery in (Orr) . 254
 BRIMMEYER, diffusion of gases through moist membranes . 62, 64
 BRINTON, diseases of the stomach . 234, 237
 — intestinal obstruction . 235, 240
 — digestion of protein substances by the pancreas . 69, 70
 BRIQUET, anæsthesia of the hysterical . 180, 188
 — hysterical convulsions . 180, 194
 — Faradization in lead colic . 180, 190
 — do. in rheumatism . 179, 183
 — communicability of thrush . 404, 406
 BRISTOWE, diphtheria . 140, 171
 BRITTAN, entozoon in the brain . 179, 182
 BROADBENT, abortion with albuminuria . 385
 — tracheotomy in croup . 399, 402
 BROCA (Paul), treatment of tetanus by woofara . 104, 108
 — Pott's [spinal] disease . 311, 317
 BROCK, diabetes mellitus . 95
 — See *Hausmann*.
 BRODHURST, division of tendon of rectus femoris . 331, 333
 BROERS. See *Brauw*.
 Bronchi, saccular dilatation of (Bamberger) . 220
 Bronchitis, its independence of pneumonia (Robin) . 221, 233
 — fumigations in (Mandl) . 219, 224
 — (capillary) hydrosulphurous vapours of Baths of Amelia (Bonafos-Lazermes) . 219, 222
 Bronchocele, serous; incision (Fergusson) . 283, 285
 BROSIUS, uterine congestion . 372, 375
 BROUGHTON, impalement of uterus in criminal abortion . 455, 456
 BROWN, Allarton's operation for stone . 295, 296
 BROWN (I. B.) cases of ovariectomy . 377, 379
 — vesico-vaginal fistula . 380-1, 382
 BROWNE, lithotomy, Allarton's operation, . 295, 296
 — Allarton's operation for foreign body in the bladder . 295, 297
 BROWN-SÉQUARD, physiology, &c., of the spinal cord . 38
 — cause of death after removal of the vital point . 38, 49
 — influence of the lateral half of the spinal cord on the opposite side of the head . 38

- BROWN-SÉQUARD, cases to disprove the crossing of nerve-fibres high in the cord . 38
 — occurrence of epilepsy after injury to the cord . 38
 — reflex movements . 38
 — nervous system . 35, 40
 — influence of oxygen on nerve-substance . 37, 48
 — on the splanchnic nerves . 39, 50
 — diminution or suspension of the heart's action during forced inspiration . 26, 30
 — experiments on the blood . 27, 32
 — blood of birds injected into animals . 27
 — means of measuring tactile sensibility . 59
 — rigor mortis . 24
 — on the supra-renal capsules . 83, 91
 — See *Smith*
 BRÜCK, scrofulous affection of teeth . 334, 334
 — Driburg Baths in pregnancy . 384, 387
 BRUECKE, muscular fibrillæ . 20, 24
 — sugar in normal urine . 95, 102
 — reduction of oxide of copper by healthy urine . 95, 102
 — glycosuria of lying-in women . 384, 387
 BRUGNOLI, ileus, from adhesion of ileum to bladder . 236, 245
 — do. . 286, 286
 BRUGNONI, report of asylum for insane at Astino . 203, 206
 BRUNNER, legal responsibility . 458
 — dead-house at Volkach . 466, 466
 BRYANT, diseases of joints . 310, 314
 — injuries of joints . 310, 314
 — do. . 311, 318
 — resection of head of humerus . 311, 317
 — misinterpreted symptoms of stone . 295, 297
 BRYCK, blood-crystals in forensic examinations for blood . 427, 430
 BUCHNER, question of fatality of injuries . 422, 424
 — and SIMON, blood-crystals . 28, 34
 BUDD, hydatid cyst of liver, &c. . 253
 — intestinal fever . 140
 — primary cancerous tumours, drainage in . 221, 234
 — poisoning by hydrochloric acid . 441, 441
 BUDGE, preserving anatomical "subjects" . 2, 6
 — genito-spinal centre of the sympathetic . 39
 — second spinal centre of the sympathetic . 39
 — sensibility of the abdominal ganglia . 39, 50
 — growth of muscles . 19, 22
 — structure of muscular fibres . 20
 — and LEWISON, nutrition of bone . 13, 16
 — See *Heincke*.
 BUHL, on neuromata . 127
 BUHRLER, forced labour . 355, 358
 BULATOWICS, action of the pneumogastric in vomiting . 39, 49

- BULLEY, acute laryngitis . . . 220, 227
 — do. 281, 282
 BULTEEL, wound of femoral artery 307, 309
 BURDACH, on the external ear . . 56, 58
 — cure of facial neuralgia . . 179, 185
 BURDEL, glucosuria in marsh fevers 254, 263
 BURGESS, partial amputation of the hand . . . 276, 277
 BURNS, arsenic in menorrhagia . . 371, 374
 BUROW, deaths after amputation . . 276, 276
 BUSCH, physiology of the digestive organs . . . 69, 72
 — loss of sensibility in transplanted skin . . . 59
 — retrograde movement of the blood in the large veins near the heart . . 26, 30
 — obstetric malpraxis . . . 428, 431
 BUTIGNOT, laceration of perinæum during delivery 338, 340
 BUYS. See *Feigneaux*.
 BYERLEY, stork's bill as a diuretic . . . 258
 CABARET, invagination of colon . . 236, 245
 — do. 286, 287
 Cæcum, detachment of, from intus-susception (Hennet) 236
 — do. 286, 287
 — invagination (M'Kidd) . . . 286, 287
 Cæsarean section (Alonso, Duclos, Esterle, Galligani, Giordano, Groesbeck, Guillaume, Hafner, M'Clelland, Murphy, Pagenstecher) 355, 360
 CAHEN, extra-uterine pregnancy . . 341, 343
 CAILLAT, imperforate hymen . . . 381
 CAILLAUT, disease of skin in children 409
 Calculous concretion lining the bladder (Wormald) 295, 297
Calculus, lithotomy and lithotrixy . . . 295
 Calculi, urinary (Beale) . . . 94, 98
 — symptoms (Bryant, Wormald) . . 295, 297
 — modern treatment . . . 295, 296
 — large, from urethra (Heath) . . 300, 302
 — in vesico-vaginal hernia (Gendron) 298, 298
 — formed round foreign bodies (Sautesson) . . . 295, 298
 — formed on slate pencil (Roberts) 295, 297
Calculus in women, operations for . . . 298
 Calculus in bladder of female (M'Ewen) . . . 298, 298
 CALLIBURCES, peristaltic movements of the digestive canal 20, 22
 Callus, formation of (Gjor) . . . 310, 315
 CAMPS, hysteria, a mental and bodily disease . . . 179, 182
 Cancer, statistics of (Sibley) . . . 141, 177
 — of bladder and kidneys (Goodwin) 253, 258
 — of the stomach (Coote) . . . 269, 271
 — of uterus and rectum (Mackenzie) 354, 358
 — encephaloid, of testicle retained in abdomen (Johnson) 255
 — epithelial, in cicatrix of burn (Flower) . . . 276, 276
 — medullary, of œsophagus, producing pericarditis and death (Firth) . . . 236, 249
 Cancer, melanotic, diagnosis by urine (Eiselt) . . . 139, 149
 Cancerous tumours, effects in the chest (Budd) . . . 221, 234
 Cancrum oris (Ross) 404
 CANTON, digestive solution of œsophagus . . . 237, 250
 — traumatic tetanus; belladonna and chloroform 324
 CAPEZZUOLI, chemistry applied to medicine . . . 3
 Carbonaceous matter from nares and intestines (Gallwey) 269, 271
 Carbonic acid, expiration of (Meyer) 62, 65
 — inhalation in granular pharyngitis (Willemin) 220, 228
 — introduction into cellular tissue (Leconte) . . . 77, 79
 — injection into uterus (Scanzoni) 372, 375
 — gas, as an anæsthetic (Herpin, Ozanam) . . . 111, 113
 Cardiac valves, mechanism of (Rudinger) . . . 26
 Cardiac and renal diseases, connection between (Traube) 254, 262
 Caries of os calcis (Stillman) . . . 312, 319
 Carmine, colouring of tissues with (Wittich) . . . 4
 CARRON DU VILLARDS, exophthalmos 326, 330
 CARSON, prolapsus of bladder in labour . . . 341
 — iodide of potassium in hydrocephalus . . . 395, 397
 CARTER, indican in the blood and urine . . . 94, 97
Cartilage 14
 Cartilage, ossification of (Aeby) . . . 4
 — do. 14, 19
 — changes in, in diseases of joints (Weber) . . . 310, 314
 — articular; nutrition, inflammation, &c. (Barwell) 14, 18
 — loose, from the knee-joint (Webb) 14, 18
 — rib-, histology of (Freund) . . . 14, 19
 CASPER, handbook of legal medicine 422, 422
 — legal questions on serious injuries 425
 — criminal abortion 456
 — insanity, various questions . . . 459
 — poisoning by phosphorus . . . 444, 444
 — cases of questionable sterility and impotence 453
 — murder or suicide 451, 451
 Castration in case of epilepsy (Holthouse) . . . 304, 305
 Cataract, artificial production of (Kohnhorn) . . . 74, 77
 — congenital (Moraud) 414
 Catarrh of the stomach, with vomiting, cured by starch (Lehmann) . . . 235, 241
 — vesical, cured by cold water (Hasse) 253
 Catheterism of larynx (Gesenius) . . . 281, 281
 CAUSÉ, vaccination 480, 481
 Caustic pencil in uterine affections 372, 375
 Cauterization in chorea (Hamon) . . . 181, 201

- CAZENAVE, on the urethra . . . 96
 — uterine polypi and versions of uterus . . . 368
 — mental state of C. B. . . . 458
 Cellular pathology (Virchow) . . . 3, 12
 — tissue, introduction of air, oxygen, &c. (Leconte) . . . 77, 79
 Cells containing blood-corpuscles (Berlin) . . . 4
 Cephalo-hæmatomata (Bierbaum, Bokai) . . . 400, 403
 Cephalotripsy (Becker, Dubois, Richard, Schultze, Wolf) . . . 356, 361-2
 Cerebellum, structure of (Gerlach) . . . 37, 46
 — physiology of (Renzi) . . . 38, 49
 — hæmorrhage into (Hillairet) . . . 182, 203
 Cerebral symptoms (West) . . . 394
 — convolutions, structure (Berlin) . . . 37
 Cervix uteri in pregnancy (Duncan) . . . 337, 338
 — amputation (Charnal, Fano) . . . 373, 375
 — do. (Huguier, Mayer) . . . 367, 369
 — cancerous (Fano) . . . 373, 375
 — carcinoma of (Spiegelberg) . . . 342, 348
 — ulceration of (McRuer) . . . 373, 376
 — rupture of (Ross) . . . 342, 347
 CHAILLY, tracheotomy in croup . . . 399
 CHANCEREL, hygiene of infants . . . 393, 394
 Chancre, lectures on (Ricord) . . . 321, 322-3
 Change of type in disease (Kennedy) . . . 139, 145
 CHAPELLE, oil of naphtha in tinea favosa . . . 410
 CHAPIN, mental disease from syphilitic infection . . . 181, 200
 CHAPLIN, cerebral abscess . . . 395
 CHARCOT, rupture of spleen in fœtus . . . 414, 417
 — and BALL, embolic plugging of pulmonary artery . . . 385, 388
 CHARIEN, retrogression of labour . . . 338, 339
 Charities, public (Blondel) . . . 466
 CHARNAL, amputation of cervix uteri by écraseur . . . 373
 CHAUVEAU, murmurs in the vessels . . . 209, 211
 CHAVANNE, puerperal fever . . . 386, 391
 CHAVASSE, poisoning by water from leaden cistern . . . 268
 — scarlet fever . . . 409
 Chelidonium majus in itching eruptions . . . 266
 Chemistry, letters on (Liebig) . . . 3, 11
 — for schools (Lardner) . . . 3, 11
 — of the skeleton (Bezold) . . . 13, 16
 — applied to medicine (Capezzuoli) . . . 3
 — animal (Kletzinsky, Lehmann) . . . 3, 11
Chemistry, pathological . . . 133
 Chest, affections of, in children (Moore) . . . 398, 400
Chest-wounds . . . 285
 CHEVALLIER, health of workmen in colours . . . 471, 471
 — on preserving food . . . 474, 474
 — plastered wine . . . 475, 476
 CHEVENIN-CONQUERET, impulse of the heart . . . 25, 29
 CHEVILLON, extra-uterine pregnancy . . . 341, 343
 CHEVREUL, action of gases on the colour of goat's blood . . . 27, 33
 CHEVREUL, contrasts of colours . . . 52
 CHIAPPELLI, private hygiene . . . 463
Children, diseases of . . . 391
 Children, diseases of (Condie, Pollitzer, West) . . . 392-3, 39
 — do. semeiology (Herrmann, Mayr Meigs) . . . 393
 — do. influence of sex on (Küttner) . . . 391
Children, hygiene, statistics, &c. . . . 391
 Children, hygiene of (Barker, Pollitzer, Schreiber, Streng) . . . 392-3, 39
Children, diseases of brain, spinal cord, nerves, and organs of senses . . . 39
 — *diseases of organs of respiration and circulation* . . . 397
 — *diseases of organs of digestion and their appendages* . . . 403
 — *diseases of kidneys and generative organs* . . . 407
 — *diseases of bones and joints* . . . 408
 — *diseases of skin and cellular tissue* . . . 408
 — *dyscrasie, tumours* . . . 415
 — *malformations, &c.* . . . 414
 CHILDS (B.) popliteal aneurism; compression . . . 306, 308
 — ovariectomy . . . 377, 379
 China, prevalent diseases of (Rattray) . . . 235, 240
 Chlorate of potash (Fountain) . . . 269
 Chloride of sodium in phthisis (Cotton) . . . 220, 226
 Chlorine inhalation in diphtheria . . . 240
 Chloroform, uncertainty of, in detecting albumen (Becquerel) . . . 95, 103
 — administration of (Todd) . . . 111, 113
 — as an anæsthetic (Kirsten) . . . 111
 — danger of inhalation of (Martin) . . . 180, 190
 — death by (Becke) . . . 111
 — death of limbs by its injection into arteries (Kussmaul) . . . 125, 131
 — &c., *employment of, in midwifery* . . . 362
 — in parturition (Kidd, Levy) . . . 362, 362-3
 — poisoning by (Bain) . . . 439
 Chlorosis (Reid) . . . 209, 211
 Cholera infantum (Blondeau, Hexamer, Schwartz, Smith) . . . 404, 405-6
 Chorda tympani (Ziemssen) . . . 39
 Chorea, mental powers in, (Marcè) . . . 181, 200
 — treatment (Bourguignon) . . . 179, 184
 — arsenious acid in (Aran) . . . 181, 199
 — aliqua plantago in (Hochstetter) . . . 395
 — cauterization in (Hamon) . . . 181, 201
 — chloroform in (Grey) . . . 395, 397
 — tartar emetic in (Gillette) . . . 179, 184
 — do. . . . 395
 — sulphate of zinc in (Stone) . . . 180, 193
 — during pregnancy (Spiegelberg) . . . 385, 389
 CHOULETTE and MUSCULUS, diagnosis of blood-stains . . . 427, 431
 CHRISTISON, poison in stomach in case of poisoning by arsenic . . . 434, 435
 — Chinese poison, Wú-tsau . . . 449, 449
 Chryptorchidism in man (Godard) . . . 304, 305
 Chyle, quantity formed in a given time (Schwanda) . . . 74, 76

- Chyle, sugar in (Colin) . . . 82, 85
 Chyme, regurgitation of, a symptom of a
 masked ague (Clemens) . . . 235, 242
 Cicatrix, painful (Hancock) . . . 276, 276
 Cigars, poisoning by arsenic in . . . 432
 Circulation of the blood (Marey) . . . 26, 29
 — researches on (Pippinskold) . . . 25
 — hydraulic experiments (Marey) . . . 26, 29
 — effect of the cold douche on (Fleury) . . . 26, 30
 — in fish (Reichert) . . . 2
Circulation, organs of, diseases of, in children
 . . . 397
Circulatory system . . . 208
 Cirrhosis, anatomy of (Sappey) . . . 208, 211
 CIVIALE, stricture of urethra . . . 300, 302
 — internal urethrotomy . . . 300, 302
 CLAPAREDE, determination of the horopter
 . . . 55
 — the stereoscope . . . 55
 — action of woorara . . . 105
 CLAR, affections of large intestines in children
 . . . 405
 CLARK, mucous disease of the colon . . . 237, 252
 — selenite as a febrifuge . . . 140, 155
 CLARKE (Le Gros), ligature of subclavian,
 in axillary aneurism . . . 306, 307-8
 CLARUS, action of solanine and dulcamara
 . . . 141
 CLAUDET, the stereomonoscope . . . 55
 CLAUDIUS, organ of hearing in the whale
 . . . 56, 58
 CLAY, anasarca of foetus . . . 414, 417
 — liability to abortion . . . 364
 — ovarian cyst in pregnancy . . . 376, 378
 CLELAND, saccharated lime . . . 268
 CLEMENS, abdominal hernia . . . 235, 242
 CLEMENT, tumour of thigh; amputation
 . . . 276, 277
 CLEMENT-LACROIX, on hanging . . . 427, 429
Climates and their influence . . . 469
 Climates, intertropical (Dutrouleau) . . . 469, 469
 — hot, influence on Europeans (Gestin)
 . . . 125, 132
 Clinical fragments (Hirsch) . . . 125, 136
 Clots, formation of, in venous system during
 life (Humphry) . . . 209, 214
 Clubbing of finger-ends in thoracic disease
 (Ogle) . . . 208, 210
 Coagulation of Blood (Hecht) . . . 27
 — do. (Lister) . . . 25, 29
 Coca, medicinal virtues of (Montegazza)
 . . . 269, 272
 COCK, epithelioma; amputation . . . 276
 COCKLE, mitral-valve disease . . . 210, 218
 COESFELD, artificial premature labour
 . . . 354, 357
 COGHILL, structure of nervous system at the
 periphery . . . 35, 43
 — irritable uterus . . . 372, 374
 — vesico-vaginal fistula . . . 380, 382
 COHN, resuscitation of dried and apparently
 dead animals . . . 118
Coitus, illegal and unnatural . . . 452
 COLBY, physiology of larger intestines . . . 69
 Colchicine in gout (Gunsburg) . . . 139, 150
 Colchicum, as a poison . . . 440
 Cold affusion in narcotic poisoning (Jackson)
 . . . 269, 271
 Cold douche, effect on the circulation (Fleury)
 . . . 26, 30
 COLDSTREAM, iodide of potassium in diseases
 of brain . . . 181, 198
 — do . . . 395, 397
 Colic, hepatic (Trousseau) . . . 254
 Colic, lead, treated by Faradization (Briquet)
 . . . 180, 190
 COLIN, force of the heart . . . 25, 29
 — origin of sugar in chyle . . . 82, 85
 — See *Berard*.
 COLLINGWOOD, microscope in medicine . . . 3
 COLLIS, cystic mammary tumour . . . 384
 COLLONGUES, dynamoscope in apparent
 death . . . 481, 481
 Colon, invagination of, in a child (Cabaret)
 . . . 236, 245
 — do. . . 286, 287
 — mucous disease of (Clark) . . . 237, 252
 — transverse, intruded into the thorax
 (Flogel) . . . 210
 Colour of the blood (Brachet) . . . 27
 — red, of venous blood (Gluge) . . . 77, 80
 — variation of, in venous blood of glands
 (Bernard) . . . 77, 80
 — of goat's blood, action of gases on (Chev-
 reul) . . . 27, 33
 Colour-blindness (Herschel) . . . 50, 52
 Colouring of tissues with carmine (Wittich)
 . . . 4
 Colours, accidental (Seguin) . . . 52, 54
 — complementary (Weicker) . . . 52
 — distinguished by one eye before the other
 (Baumgartner) . . . 52
 — contrasts of (Chevreul) . . . 52
 — noxious, health of workmen in (Chevallier)
 . . . 471
 — copper, do. (Prosper) . . . 471
 Coma, death from (Parkes) . . . 178, 182
 Comatula rosaceæ, embryogeny of (Thomson)
 . . . 117, 121
 Compression, digital, in inflammation (Van-
 zetti) . . . 209, 215
 — do. (Vanzetti) . . . 274, 275
 CONDE, purulent ophthalmia . . . 326
 CONDIE, diseases of children . . . 393
 Conjunctiva, diseases of (Valentini) . . . 325
 Conjunctivitis (Stellwag von Carion)
 . . . 326
 — diphtheritic (Graefe) . . . 395
 — purulent (Desmarres) . . . 395
 Constipation, from stricture of sigmoid flexure
 (Thompson) . . . 286, 287
 — chronic, from displacements of intestine
 in typhoid fever (Breithaupt) . . . 235, 242
 — habitual, St. Germain tea in . . . 241
 Consumption. See *Phthisis*.
Contagion and Miasma . . . 477
 Contagion, genesis of, &c. (Guerdan, Hennig-
 son) . . . 477, 478

- Contractility of the heart, its duration
after death (Vulpian) . . . 125, 131
— of ureters (Vulpian) . . . 96, 104
Contraction of fingers after injury of nervous
filament (Borelli) . . . 331, 334
Convulsions, reflex saltatory (Bamberger)
180, 187
— rotatory (Minchin) . . . 181, 202
— hysterical (Briquet) . . . 180, 194
— hysterical puerperal (Kidd) . . 178, 182
— puerperal (Dupeau, Keen, Kidd, Overton,
Ramsbotham) . . . 385-6, 389-90
— See *Eclampsia*.
COOKE, pregnancy during uterine phlebitis
387
COOPER, wounds and injuries of the eye
325, 327
COOPMANN, digestion of vegetable albumen
69
COOTE (C. T.) cancer of the stomach, &c.
269, 271
— (H.) extravasation of urine . . 298, 299
— necrosis of jaw from fumes of phosphorus
311, 316
Copper, oxide of, in healthy urine, on re-
ducing (Bruecke) . . . 95, 102
— sulphate of, for exciting vomiting in
croup (Missoux) . . . 221, 230
COQUEREL, diphtherous larvæ in frontal sinus
221, 230
CORDIER, spontaneous purulent ophthalmia
326
CORMAK, pulmonary consumption . 400
CORNER, separation of epiphysis of tibia and
fibula . . . 311, 315
CORNOCHAN, division of superior maxillary
nerve . . . 39
CORRIGAN, pica, or dirt-eating, of children
236, 248
Corrosive sublimate, physiological action
(Joseph) . . . 105, 110
CORSON, management of shoulders in exami-
nations of chest . . . 219, 224
CORTES, urethralgia . . . 195
CORVISART, digestion of albuminous bodies
by the pancreas . . . 68-69, 70
— duodenal dyspepsia . . . 235, 243
Coryza, in infants (Bouchut, Meigs) 398, 401
COSTES, emphysematous tumours on skull
311, 316
COSTETTI, military ophthalmia . . 326
COSTILHES, chronic metritis . . . 373, 376
COTTON, chloride of sodium in phthisis
220, 226
— iodide of potassium in phthisis . 221, 234
COULIER, microscopic characters of blood-
stains . . . 427, 431
COULSON, fibro-plastic tumours . . 276, 277
— thermometer-tube from urinary bladder
295, 298
— wound of knee-joint . . . 312
Coup de soleil. See *Sun-stroke*.
COUTARET, identity of blue and green co-
louring of pus . . . 134
COX, impaction of small intestine with lum-
brici . . . 236, 247
Cranial blood-swelling (Rigby) . . 400, 403
Craniotomy (Braun, Druitt, Greenhalgh,
Lehmann, Mackenzie, Simpson)
355, 358-9-61
— abolition of (Smith) . . . 355, 360
CRAVEN, excision of knee-joint . . 312, 319
Creatine in urine of dog (Liebig) . . 94, 100
CREDE, artificial premature labour 354, 357
CREGEEN, rupture of right auricle 209, 215
CREQUY, croup and diphtheria . . 398
CREUTZ, paralysis of the muscles . . 51
CRISTOFORIS, subperiosteal pubic resection
356, 362
Croton oil in hydrocephalus (Watson)
180, 188
— do. . . 394, 396
CROUCH, childbirth after ovariectomy
377, 379
CROUDARE, catalepsy from overdose of Indian
hemp . . . 440, 440
Croup, anæsthesia a symptom (Bouchut)
399, 402
— cryptogamic nature (Demartis) . 399
— albuminuria in (Bouchut) . . 398, 402
— mortality of, in Paris (Bouchut) 398, 402
— treatment of (Luzinsky) . . 220, 225
— do. (Assanis, Bellaspect, Bouchut,
Crequy, Hauner, Kerli, Kortüm, Pudon,
Trousseau, West) . . . 398-9, 402
— topical treatment (Trousseau) . 219, 224
— catheterism of larynx in (Gros) . 398
— sulphate of copper in (Missoux) 221, 230
— glycerine in (Mayer) . . . 399, 402
— iodide of potassium in (Luzinsky)
399
— tracheotomy in . . . 219, 223
— do. (Evans) . . . 221, 231
— do. See *Tracheotomy*.
CRUSE, on saccharine urine . . . 95, 102
Cryptobranchus Japonicus, blood-corpuscles
of (Harting) . . . 28, 34
Crystals, formation of, in the blood . 10
— See *Blood-crystals*.
— dumb-bell, of oxalate of lime (Beale)
94, 98
CUMMINS, use of forceps . . . 355, 359
CUPPAIDGÉ, occlusion of vagina . . 341, 344
CURIE, motor branch of the lachrymal
37
CURLING, inguinal hernia in a female
288, 290
— acute periostitis . . . 310, 312
— Pirogoff's operation . . . 276, 278
— compound fracture of skull; trephine
311, 316
— cystic disease of testicle . . . 304, 305
Curvature, angular (Schreber) . . 408, 409
— do. in lumbar region (Birnbbaum)
341, 344
CUSACK, injury of bladder . . . 299, 300
Cutaneous system . . . 264
CUTLER, glass tube in bladder . . 295, 297

- Cyanosis (Fox) 209, 215
 Cynuric acid in urine of the dog (Liebig) 94, 100
 Cysts, production of walls of, round pus (Robin) 125, 131
 — in the orbit, cured by iodine (Wordsworth) 327, 330
 — of vagina (Ladreit) 381, 383
 CZERMAK, accommodation of the eye 51, 54
 — influence of the nerves on the salivary secretion 78, 81
 — laryngeal speculum 62, 67
 — do. 126, 137
 DA COSTA, blowing-sound in pulmonary artery in affections of the lung . 209, 213
 DALTON, human physiology 1, 4
 DANIELL, suppurative iritis 326, 330
 DANIELSEN, syphilization 140, 155
 DANNENBERG, spermatic stains 427, 431
 DARIEN, abortive remedies 455, 456
 Darkness, influence of, on growth of animals (Dobell) 117, 120
 DAUB, anæsthetics 111
 DAVAINÉ, parasites in the brain 38
 DAVEY, disorganization of supra-renal capsules, without discoloration of skin 253, 255
 DAVIES (Redfern) radical cure of hernia 289, 292
 — femoral and ventral hernia radically cured 289, 292
 DAVIS (Hall) ovarian gestation 341, 343
 DAVY, electrical condition of the egg of the fowl 117, 120
 Dead bodies, physiognomy of (Hauska) 427, 429
 Dead-house at Volkach (Brunner) 466
 Death, doctrine of priority of (Krügelstein) 427, 429
 — from falling into boiling-pit of a distillery 427
Death of new-born children, doubtful causes of 455
 Death, sudden, in infancy (West) 398, 401
 — by chloroform (Becke) 111
Death, apparent, inspection of the dead 481
 Death, apparent, signs of (Collongues, Koschate) 481
 — do., in animals; resuscitation (Cohn) 118
 DEBENHAM, inhaling steam by tracheotomized 220, 225
 DEBOUT, umbilical hernia 416
 — spina bifida 416, 420
 DECAISNE, metrorrhagia from fungosities of uterus 371
 DECLAT, hygiene of infancy 392, 394
 Deformities of the foot (Eulenberg) 408
 Deglutition, difficult (Erichsen) 279, 280
 DELACOUR, monster "Peracéphale" 415, 418
 DELACOUSE, albinism in equatorial regions 415, 418
 Delirium tremens 180
 — from cold and wet (Fox) 179, 183
 — against opium and stimulants in 188
 DELORE, blue pus 125, 133
 — painful flat-foot 331, 333
 DELVAUX, ulcerative gingivitis 404
 DEMARQUAY, contusion of urethra 301, 303
 — See *Leconte*.
 DEMARTIS, cryptogamic nature of croup 399
 DE MERIC, fungus of testis in syphilis 304, 305
 — syphilitic gangrene of mouth 278, 279
 — fibroid tumour of os uteri 372, 375
 DE MORGAN, tetanus 179, 183
Dental surgery 334
 Dental surgery (Tomes) 334, 334
 — tissues, formation of (Rainey) 14
 Dentition, first (Blandin, Hannard, Steinberger) 404
 DESMARRES, purulent conjunctivitis 395
 DESTOUCHES, incontinence of urine in children 407
Development 117
 Development of animals, influence of light on (Dobell) 117, 120
 — of the female pelvis (Duncan) 117, 121
 DEVERGIE, chloriodide of mercury in acne rosacea 266
 DEVILLE, ergot in parturition 362, 363
 DEZON, cold in vomiting in pregnancy 386, 390
 Diabetes (Brock, Stadfeldt) 95
 — (Pavy) 255
 — origin of the sugar in (Eschricht) 82, 86
 — lesions of nervous system producing (Pavy) 82, 84
 — hygienic treatment of (Bouchardat) 254, 262
 — traumatic 253, 259
 Diabetic sugar (M'Donnell) 82, 84
 Diacslasis, amputation by (Maisonneuve) 275, 275
Diagnosis, medical 125, 134
 Diarrhœa of India and China (Donaldson) 237, 252
 — severe, cured by sugar 240
 — coetaneous with conception (Girdwood) 236, 248
 — do. 386, 390
 — of infants (Guerdan, Schultzer) 404
 — do. use of raw meat in (Weisse) 236, 246
 — do. 405, 406
 DICKINSON, conditions of kidney giving rise to Bright's disease 253, 256
 DIDAY, infantile syphilis 413, 413
Dietetics 461
 Dietetics (Ideler, Wittmaack) 461, 461
 — for children (Wittmaack) 393
 DIETZ, atresia uteri 367
 DIEULAFOY, inguinal hernia reduced "en masse" 288, 291
 Difference between man and animals (Bischoff) 2
Digestion 68
 Digestion (Florent) 69, 72
 — experiments on (Blondlot) 69, 71

- Digestion of animal albumen (Arnold) 69, 72
 — of albuminous bodies by pancreas (Corvisart) . . . 69, 70
 — of vegetable albumen (Coopmanns) 69
 Digestive canal, peristaltic movements of (Calliburces) . . . 20, 22
 — organs, physiology of (Busch) . 69, 72
Digestive organs, diseases of, in children 403
Digestive system . . . 234
 Digitalis in inflammation and pneumonia (Schneider) . . . 139, 147
 Diphametric compass (Ogle) . 58, 60
 Diphtheria (Ballard) . . 140, 163
 — (Hillier) . . . 234, 239
 — (May) . . . 141, 176
 — (Smith, &c.) . . . 140, 165
 — lecture on, by Ranking . 151
 — cases of (Bogge) . . 140, 166
 — do. (Bristowe) . . 140, 171
 — summary of cases (Houghton) . 140, 159
 — conclusions from tables of cases in 'British Medical Journal' . . 158
 — Report of 'Lancet' Commission on . . . 139, 152
 — at Canterbury (Rigden) . 139, 154
 — at Crowle (Ellis) . . 139, 154
 — do. . . 141, 177
 — nature of the exudation in . 12
 — parasitic nature of (Harley, Laycock) . . . 114, 117
 — paralysis; recovery (Ransome) 141, 175
 — of traumatic surfaces (Heyfelder) 139, 150
 — local treatment (Ramskill) . 139, 153
 — tracheotomy (Barker) . . 281, 283
 — sequelæ of (Faure) . . 404, 406
 — paralysis as sequela of (Eade) . 140, 164
 Diphtheritic exudation, inoculation of (Harley) . . . 235, 242
 Diplopia from a blow on the head (Parkes) . . . 178, 182
Diseases affecting the general system 138
 Diseases, simultaneous existence of two or more, from specific morbid poisons (Murchison) . . . 140, 166
 — causation and prevention of (Parkin) . . . 138, 141
 — statistics of mortality of . 465
 Dislocation, congenital, of the hips (Voss) . . . 294, 294
 Dissection, manual of (Holden) . 1, 5
 Distance between two points on the limb, effect of practice in recognising (Volkmann) . . . 59, 61
 — tactile recognition of (Wundt) . 59, 61
 Distortion of features in infants (Kidd) . . . 394, 396
 Diuresis, chronic (Willshire) . 253, 257
 Diuretics, action of vegetable (Hammond) . . . 253, 255
 Divorce, mental disease as reason for (Jessen) . . . 422, 424
 Dix, renal and hepatic tumours . 240
 Dixon, diseases of the eye . . 325, 327
 DOBELL, influence of white light, coloured rays, and darkness, on growth of animals . . . 117, 120
 DOIG, cross presentations . . 348
 DOMERC, case of triplets . . 348
 DOMMES, skeleton of man, made by maggots and insects . . . 427
 DONALDSON, diarrhœa and dysentery of India and China . . . 237, 252
 DONKIN, placenta prævia . . 351, 351
 DOR, puerperal fever . . 386, 391
 DORNBLUTH, senses . . 51
 DORSCH, anomalous venæ cavæ . 415, 418
 DOVE, binocular vision in calculating distance . . . 55
 — essential oils in puerperal fever 387
 DRAGONET, mental condition of murderer . . . 458
 — See *Eggs*.
 Drainage in paracentesis for empyema (Goodfellow) . . . 221, 234
 Drains, emanations from (Barker) . 468
 DRITTL, cystoid tumour of neck . 283, 284
 Dropsy, symptomatic, of Bright's disease (Roeser) . . . 253, 259
 — renal (Basham) . . . 253, 258
 DRUITT, 'Surgeon's Vade Mecum' 273, 273
 — craniotomy . . . 356, 361
 — houses in relation to health . 269
 DUBEN, microscope in clinical medicine 3
 DUBOIS, cephalotripsy . . 356, 362
 DUBOIS-REYMOND, animal electricity 36
 — on the electrical shad-fish . 36
 — polarization of porous electrolytes 36
 — do. dissimilar electrolytes . 36
 DUCHAUSSOY, strychnine in prolapsus ani in children . . . 405
 DUCHEK, on ague at Lemberg . 140, 156
 — pericarditis . . . 209
 DUCHENNE, "ataxie locomotrice progressive" . . . 181, 200
 DUCLOS, Cæsarean section . . 355, 360
 DUDTENHOFFER, senses of educated people . . . 51
 DUFRESNE, discharge of blood and pus in liver into intestinal canal . 235, 243
 DUGAN, absence of vagina and uterus 367
 Dulcamara, action of (Clarus) . 141
 DUMENIL, paralysis of motor nerves of face, &c. . . . 181, 195
 DUMERIL, organs of smelling, tasting, and hearing, in fish . . . 58
 DUNCAN, development of the female pelvis . . . 117, 121
 — do. . . 365, 366
 — malformation of urinary organs 415, 419
 — cervix uteri in pregnancy . 337, 338
 — vomiting of food . . 235, 242
 — W. Reid's trial for abortion . 455, 456
 DUNN, statistics of midwifery practice 364
 Duodenal dyspepsia (Corvisart) . 235, 243
 Duodenum, perforating ulcers of (Wallmann) . . . 236, 248

- Duodenum, ulceration of, causing death by erosion of pyloric artery (Ranking) 236, 248
 — vomiting of blood from ulcers in (Liljeborn) 236, 247
 DUPEAU, chloroform in puerperal convulsions 386, 389
 DUPONCHEL, new system of water-closets 468, 468
 DUPRÉ, cancerous pulmonary phthisis 219, 223
 Dura mater, hæmatoma of (Schuberg) 181, 197
 DURIAU, apoplexy of spinal cord . 181, 201
 DURRANT, treatment of boils . 264, 266
 — functional affections of the heart 208
 — partial paralysis 181, 199
 DUSCH, communication between the ventricles 28, 34
 Dust, influence of, on health of artisans (Vernois) 472, 472
 DUTROULEAU, intertropical medical topography 465-9, 469
 Dysentery of India and China (Donaldson) 237, 252
 — acute, of China (Rattray) . 235, 240
 — with aneurism of aorta (Thornhill) 237, 250
 — coetaneous with conception (Girdwood) 236, 248
 — do. 386, 390
 Dysmenorrhœa (Becquerel) . 371
 Dyspepsia, treatment of severe (Leared) 234, 239
 — duodenal (Corvisart) 235, 243
 Dysphagia, forms and treatment (Gunther, Habershon, &c.) 235
 Dystocia from size of foetus (Jacquemier) 349, 350
 Dystrophy of children (Kuttner) . 404
 EADE, paralysis as a sequela of diphtheria 140, 164
 EAGER, partial amputation of the hand 276, 277
 EAGON, epilepsy succeeding menstrual suppression 371, 373
 Ear, the 55
 Ear, the (Sturm) 57
 — of the whale (Claudius) 56, 58
 — the external (Burdach) 56, 58
 — certain conditions of (Bonnafont) 56
 — See *Hearing*.
 — bones of the (Bonnafont) 56, 57
 — affections of, from scarlet fever (Volto-
 lini) 395
 — bleeding from, in a child (Morvan) 395
 EARNSHAW, mathematical theory of sound 56
 EASTON, obstruction of bowels, and stercoraceous vomiting 236, 247
 EBRA, iodine injections in spina bifida 416
 Echinococci (Levison) 114
 — reproduction of (Van Beneden) 114, 116
 Echinococcus fluid (Recklingshausen) 125, 133
 ECKHARD, anatomy and physiology 1, 5
 ECKHARD, the heart's action . 27, 31
 — influence of the nerves on the salivary secretion 78, 81
 — Electrical organ of the ray . 36
 Eclampsia puerperalis (Barozzi, Bignami, Boursier, Paget, Pesch) 385, 389
 — See *Convulsions*.
 Ecraseur 275
 Ecraseur in operation for anal fistula (Quinlan) 275, 275
 Eczema, cod-liver oil soap in (Behrend) 409, 410
 EDWARDS, human horns 264
 — (Milne) comparative anatomy and physiology 2, 10
 Egg of the fowl, electrical condition (Davy) 117, 120
 EGGS (D') and DRAGONET, mental state of a girl 459
 EHRMANN, monstrous foetus . 414, 416
 EISELT, diagnosis of melanotic cancer by the urine 139, 149
 Electrical condition of the egg of the fowl (Davy) 117, 120
 Electrical current, action on the motor nerves and muscles (Althaus) 35, 45
 — do. 138, 144
 — passage of, through nerve-centres (Bon-
 nefin) 36
 — effects of a constant (Pflüger) . 35
 Electrical organ of the ray (Eckhard) 36
 — shad-fish (Dubois-Reymond) . 36
 — stimuli (Schiff) 35
 Electricity, therapeutic uses . 180
 — modes of applying (Stein) . 35
 — locally applied (Lucius) . 35
 — power of muscles over local action of (Kupffer) 20, 22
 — amount necessary to excite different tissues (Bernard) 36
 — paralysis of tongue cured by (Posner) 220, 225
 — animal (Dubois-Reymond) . 36
 — medical (Althaus) 138, 144
 Electro-physiology (Matteucci) . 36
 — among the ancients (Linati) . 36
 Electro-physiological experiments (Regnaud) 35
 Electrolytes, polarization of (Dubois-Reymond) 36
 Elephantiasis of scrotum (Walton) 305, 306
 ELKINGTON, polypus of uterus . 372, 375
 ELLIS, involuntary muscular tissue of the bladder 19, 21
 — statistics of labour 364
 — diphtheria at Crowle 139, 154
 — do. 141, 177
 ELSAESSER, case of triplets . 348
 — lying-in hospital at Stuttgart . 364
 — premature births 453, 454
 Emboli in the cerebral arteries (Spring) 180
 Embryo, dividing of blood-corpuscles in (Radlkofer) 4

- Embryogeny of *comatula rosaceæ* (Thomson) . . . 117, 121
- Embryotomy (Levy) . . . 356, 361
- Emphysema during labour (Bishop) . . . 338, 340
- EMPIES. See *Bouchut*.
- Empyema, terminating by vicarious secretion (Moore) . . . 221, 230
- plan of drainage in paracentesis for (Goodfellow) . . . 221, 234
- Ems, waters of (Spengel) . . . 3
- Encephalocele, congenital (Vines) . . . 415, 420
- Endemic and epidemic diseases* . . . 478
- Endosmose, physiology of (Ludwig) . . . 74
- Endosmotic equivalent of peptone (Funke) . . . 74, 76
- ENGERT, histology . . . 3
- Entopics (Jago) . . . 50, 53
- Entozoa, development of (Wagener) . . . 114, 117
- in man (Blume) . . . 114
- in the brain (Brittan) . . . 179, 182
- in the heart of the seal (Jolly) . . . 114, 117
- Epiglottis, instrument for examining (Price) . . . 62
- lesions of (Green) . . . 220, 224
- Epilepsy, physiology of (Foville) . . . 38
- after injury to the cord (Brown-Séguard) . . . 38
- tracheotomy in (Riccard) . . . 179, 185
- castration for (Holthouse) . . . 304, 305
- simulated (Schneider) . . . 451, 452
- Epiphyses, separation of (Klose) . . . 310, 312
- do. . . . 408
- inflammation of (Gosselin) . . . 310, 312
- of tibia and fibula, separation of (Corner) . . . 311, 315
- do. (Adams) . . . 311, 316
- Epispadias* . . . 294
- Epithelioma of the eye (Sichel) . . . 325, 327
- of right leg and tibia (Cock) . . . 276
- Epithelium, on (Billroth) . . . 4
- Erectile organs of women (Ronget) . . . 365, 365
- Ergot of rye, noxious influence (Griepenkerl, Niemann) . . . 473, 474
- in parturition (Deville) . . . 362, 363
- ERICHSEN, difficult deglutition . . . 279, 280
- congenital hernia, with undescended testis . . . 288, 290
- excision of the knee . . . 312, 319
- strumous disease of knee-joint; excision . . . 312, 318
- sacro-iliac disease . . . 311, 318
- diseases of tarsus . . . 312, 319
- tetanus . . . 324, 324
- Erodium cicutarium as a diuretic . . . 258
- Eruption, obstinate, cured by vapour of heated wine (Ludkiewick) . . . 264, 266
- Erythema nodosum (Mayr) . . . 410, 412
- ESCHRICHT, SCHARLING and HANNOVER, on diabetes . . . 82, 86
- ESPINE (Marc d') sternal fissure in M. Groux . . . 25, 29
- ESTERLE, Cæsarean section . . . 355, 360
- external turning . . . 354, 358
- ESTEVENET, faecal fistula after operation for strangulated hernia . . . 288, 291
- Ether, sulphuric, death by . . . 425, 428
- EULENBERG, ovarian cyst, &c. . . 376, 378
- deformities of the foot . . . 408
- murder by criminal neglect . . . 425, 428
- Evacuations, involuntary, of children, bella-donna in (Bercieux) . . . 235, 241
- EVANS, retroversion of uterus . . . 342, 345
- (Conway) tracheotomy in croup . . . 221, 231
- do. . . . 399, 402
- EVERSHED, arm presentation; spontaneous expulsion . . . 348, 349
- Evolution, spontaneous (Bogg, Evershed, Madge, Metzler) . . . 348, 349-50
- Exanthemata, contagious, in Teheran (Pollak) . . . 409
- Excision of ankle-joint (Hancock) . . . 312, 319
- of head of humerus (Bryant, Fergusson) . . . 311, 317
- of the knee-joint (Craven, Erichsen, Fergusson, Price, Solly, Watson) . . . 311-12, 318-19
- for disease of synovial membrane (Kinloch) . . . 312, 319
- of the patella (Lister) . . . 312, 319
- partial, of the hand (Coulson) . . . 276, 277
- Excretion of solids by the lungs (Wiederhold) . . . 62, 64
- Exhalations, putrid, innocuousness of (Parkin) . . . 138, 141
- Exomphalos of gravid uterus (Murray) . . . 385, 388
- Exophthalmos (Carron du Villards) . . . 326, 330
- Exostosis of orbit (Aiken) . . . 327, 331
- Extrophia of bladder (Restin) . . . 416
- Eye, the* . . . 50
- Eye, the (Rau, Sturm, Vallee) . . . 51
- certain conditions of (Bonnafont) . . . 56
- appearance of light in (Willigen) . . . 51, 54
- accommodation of (Aubert, Bahr, Czermak, Mannhart, Muller) . . . 51, 54
- do. in fish (Manz) . . . 52, 54
- do. secule cornutum in disturbance of (Willebrand) . . . 209, 214
- oblique illumination of, in diagnosis (Küchler) . . . 326, 330
- Eye, diseases and wounds of the* . . . 325
- Eye, diseases of (Dixon) . . . 325, 327
- do. in India (Martin) . . . 325
- epithelioma of (Sichel) . . . 325, 327
- wounds and injuries (Cooper) . . . 325, 327
- Eyeball, paralysis of muscles of (Graefe, Schuff) . . . 51
- Eyelids, movements of (Henke) . . . 51, 54
- contagious disease of (Müller) . . . 325
- FABER, vaccination in 1858 . . . 480, 480
- FACEN, infantile meningitis . . . 395
- FAGE, children's hospital, Christiania . . . 394
- Fallopian tubes, hæmorrhage of (Puech) . . . 377, 379
- FAIRET, alcoholic delirium . . . 458

- FANO, amputation of cervix uteri for carcinoma 373, 375
 — lacteal fistulæ 383, 384
 Faradization in rheumatism (Briquet) 179, 183
 — in lead colic (Briquet) 180, 190
 FARRE, substances discharged from bladder 113, 115
 — nitro-muriatic acid in gastric fever of children 405
 Fat, a normal element of supra-renal capsules (Vulpian) 83, 92
 — excess of, in human milk (Schlossberger) 78, 81
 — absorption of (Haidenhain) 74, 76
 Fatty heart, diagnosis of (Kennedy) 209, 212
 — liver and kidneys (Gluge) 83, 87
 FAURE, sequelæ of diphtheritis 404, 406
 FAUVEL. See *Le Diberder*.
 Favus, report on (Hutchinson) 264, 267
 — do. 410, 412
 FECHNER, muscular exercise 20, 22
 — effect of practice in perfecting the sense of touch in the opposite limb 59, 61
 Fehling's liquid for detection of sugar (Babo) 94, 100
Feeling, sense of 58
 FEIGNEAUX and BUYS, laceration of coronary arteries 209, 218
 FEIT, public slaughterhouses 467, 467
 Femur, fractured, in a child (Lawson) 310, 315
 FENNER, vesico-vaginal fistula 380, 382
 FENNERLEY, case of triplets 348, 349
 FERGUSSON, excision of head of humerus 311, 317
 — excision of knee-joint 312, 319
 — serous bronchocele; incision 283, 285
 — ununited fracture of thigh 310, 315
 FERNET, absorption and exhalation of gases by blood and saline solutions 62, 65
 Fever, clinical notes (Gairdner) 140, 161
 — a nervous phenomenon (Bernard) 269, 272
 — selenite in (Clark) 140, 155
 — village (Newham) 139, 146
 Fevers, continued, causes of (Murchison) 140, 171
 — do., prevalence in 1858 (Murchison) 139, 154
 — epidemic, at Windsor (Murchison) 140, 171
 — intermittent (Duchek) 140, 156
 — do. (Heidenhain) 139, 149
 — do. (Schramm) 140, 158
 — do. in childhood (Bouchut) 413
 — do. ligature of limbs in (Brauw) 139, 150
 — intestinal (Budd) 140, 162-175
 — do. contagious (Budd) 140, 160
 — marsh (Berchon) 139, 147
 — rheumatic (Whitley) 141, 174
 — typhoid (Rostan) 139, 147
 — yellow (Berchon) 139, 147
 — African, on Zambesi (Livingstone) 469, 470
 Fibres, longitudinal, of rectum (Beraud) 20, 23
 Fibrillæ, muscular (Bruecke) 20, 24
 Fibrin, pathological variations of, in the blood (Parchappe) 125, 132
 FICK, human physiology 2
 — form of bones 13, 16
 FIDDES, extirpation of tongue 278, 279
 FINIZIO, artificial premature labour 354, 357
 FIRTH, medullary cancer of œsophagus 236, 249
 FISCHER, nature of rigor mortis 24
 — abnormal subclavian artery 27, 33
 Fish, circulation in (Reichert) 2
 — organs of smelling, tasting, and hearing, in (Dumeril) 58
 — skeleton of (Huxley) 14, 17
 — osseous, microscopic structure (Kölliker) 13, 15
 Fissures in bones (Huber) 427, 429
 Fissure, congenital, of right cheek (Ward) 278, 279
 — of sternum, congenital (Moeller) 416
 — sternal, in M. Groux (M. d'Espine) 25, 29
 Fistula, gastric, artificial (Blondlot) 69, 71
 — lacteal, treatment by compression (Fano) 383, 384
 — perineal (Williamson) 301, 303
 — recto-vaginal (Breslau) 377
 — vesico-vaginal (Battey, Breslau, Brown, Coghill, Fenner, Hergott, MacGhie, Marshall, Monnu, Nevins, Pollock, Simon, Tanner, Thorp, Watson) 380-1, 381-2
 FIXSEN, on the frog's tongue 27, 33
 FLECHSIG, contributions to balneology 264
 FLEMING, accident by lightning 180, 195
 — severe dyspepsia, &c. 234, 239
 — injuries and diseases of urinary organs 94, 98
 — do. 300, 301
 — turning *v.* craniotomy 355
 — spinal curvatures 408
 FLEURY, effect of the cold douche on the circulation 26, 30
 FLINT, heart-sounds, pneumonia 221, 233
 FLÖGEL, pleuritic and pericardial exudation, &c. 210
 — supernumerary testicles 414, 417
 FLORENT, on digestion 69, 72
 Flour, medico-legal inspection (Krügelstein) 473, 473
 FLOURENS, life and intelligence 2
 — observations on the vital point 38, 49
 — "circulation nerveuse," recurrent sensibility in motor roots of spinal nerves 39
 FLOWER, epithelial cancer in cicatrix of burn; amputation 276, 276
 — fibrous tumour of scapula 310, 313
 FLUGEL, treatment of thrush 404, 406
 Fluids, animal (Bernard) 3, 10
Fœtus, general anatomy and physiology 335
 Fœtus, premature respiration (Schwartz) 335, 336

- Fœtus, influence of parturition on (Schwartz) . . . 335, 336
 — anatomical relation with mother (Madge) . . . 335, 335
Fœtus, unusual conditions . . . 348
 Fœtus, emphysematous (Lizé) . . . 348
 — hydrocephalic (Schultze) . . . 349, 350
 — pseudencephalic (Houel) . . . 416, 420
Fœtus, malformations, &c., of . . . 414
 Fœtus in fœtu (Luschka) . . . 414, 417
 — spontaneous amputation in (Martin) . . . 415, 418
 — separation of two adherent (Reiner) . . . 414, 416
 — acranial (MacLachlan) . . . 415, 418
 — monstrous (Ehrmann) . . . 414, 416
 — death in utero (Koeberlé) . . . 351, 353
 — do. and retention of (Koch) . . . 349
 — do. and absorption of (Fountain) . . . 349, 350
 — repeated death of (Maydell) . . . 385, 387
 FOLWARCZNY. See *Pleischl*.
 FOMERIS, function of the thyroid gland 84, 92
 FONSAGRIVES, hygiene of La Trappe, Bric-
 queber . . . 465
Food . . . 462, 473
 Food, treatise on (Artmann) . . . 462, 463
 — guide to collection at S. Kensington
 (Lankester) . . . 68
 — popular treatise on (Moleschott) 69
 — phosphates in (Sick) . . . 95, 102
 — action of, on respiration (E. Smith) 62, 65
 — effect of, on secretion of bile (Arnold) 83, 88
 — analysis of effect of, on bile . . . 88
 — means of preserving (Chevallier) 474
 — of young animals, earthy phosphates in
 (Lehmann) . . . 69
 — table of do. . . 73
 — inorganic (Lehmann) . . . 69, 72
 — animal, composition of, and relation to
 bread (Gilbert) . . . 68, 69
 Foot, painful flat-foot (Delore) . . . 331, 333
 Foramen ovale, patent, in the adult (Wall-
 mann) . . . 27, 34
 — do. . . 209, 217
 Forceps, use of, in parturition (Cummins,
 Harper, Kirsteller, Priestley, Ramsbotham)
 . . . 355, 359
 FORGET, cerebral rheumatism . . . 179, 186
 Foreign substances in the body . . . 268, 269
 Form, laws of organic (Spencer) . . . 117, 119
 FORSTER, foreign body in trachea; tracheo-
 tomy . . . 281, 283
 — See *Addison*.
 Fossil mammals of Australia (Owen) 13, 15
 Fossil marsupial carnivore skull (Owen)
 . . . 13, 15
 FOUCART, placenta prævia . . . 351
 FOUCHER, orbital tumour . . . 326, 330
 — sulphuric acid in cystic tumours 320, 321
 Foundling institutions, mortality of infants
 in (Routh) . . . 466, 466
 FOUNTAIN, absorption of fœtus . . . 349, 350
 — chlorate of potash . . . 269
 FOURNIER, waxy liver . . . 254, 259
 FOVILLE, physiology of epilepsy . . . 38
 — pneumonia of infants . . . 399
 FOX, identity of parasitic fungi of human
 surface . . . 114, 116
 — delirium tremens from exposure to cold
 and wet . . . 179, 183
 — cyanosis, and temporary basic systolic
 murmur . . . 209, 215
 Fractures of the skull . . . 426, 428
 — of skull, compound (Birkett, Curling,
 Lunn) . . . 311, 316
 — compound, of shoulder-joint (Skey) 311, 318
 — radius and ulna, treatment by drilling and
 wiring (Sanborn) . . . 311, 315
 — of femur in a child (Lawson) . . . 310, 315
 — do., ununited (Fergusson) . . . 310, 315
 — of neck of femur (Morgan) . . . 311, 315
 — do. delayed union (Adams) . . . 311, 315
 FRANK, facial neuralgia; cure by neurotomy
 . . . 179, 186
 FRANKENHAUSER, diagnostic sounds of the
 foetal heart . . . 338, 339
 FRANQUE (De) anæsthesia of the olfactory
 nerve . . . 179, 185
 FREUND, histology of rib-cartilage 14, 19
 — toxic effects of carbonic oxide gas in preg-
 nancy . . . 385, 389
 FREY, sketch of animal life . . . 2
 FRIEDBERG, hare-lip . . . 278, 279
 — muscular paralysis . . . 207, 208
 — contractions of hip . . . 408
 FRIEDINGER, children's hospitals . . . 410
 — cowpock lymph . . . 410
 FRIEDLANDER, inversion of vagina, &c. 415
 FRIEDLEBEN, physiology of the thymus gland
 . . . 84, 92, 127
 — thymus in health and disease . . . 397, 400
 FRIEDLINGER, syphilis in children . . . 413
 FRITZ, hydatid mole . . . 351, 352
 Frog, cutaneous pigmentary system of 7
 — tongue of (Fixsen) . . . 27, 33
 — poisoned by animal exhalations (Vulpian)
 . . . 105
 FROMMANN, intus-susception . . . 236, 245
 — do. . . 286, 288
 FUCHS, glucogenic function . . . 82
 FULLER, administration of belladonna 181
 — renal anasarca . . . 255
 Fumigations in bronchitis (Mandl) 219, 224
 Fungi. See *Parasitic fungi*.
 — of testis in syphilis (De Meric) . . . 304, 305
 Fungoid productions in alkaline and albu-
 minous urine (Hassall) . . . 114, 116
 Funic souffle (Schmitt) . . . 337, 339
 FUNK, laryngeal speculum . . . 126
 FUNKE, text-book of physiology . . . 2, 10
 — cutaneous perspiration . . . 77, 78
 — function of the pancreas . . . 69, 71
 — endosmotic equivalent of peptone 74, 76
 — action of woorara, &c. . . 105
 GABRIAC, impulse of the heart . . . 25, 29
 GAILLARD, prolapsus uteri; cauterization
 . . . 368, 370

- GAIRDNER, aneurism of thoracic aorta, &c. 210
- fever 140, 161
- on gout 139, 149
- pericarditis 208, 210
- pleuritic effusion 221, 233
- Gall-bladder, glands of (Luschka) 83, 89
- function of mucous membrane of (Kemp) 83, 88
- GALLARD, peri-uterine hæmatocele 377
- GALLIGANI, Cæsarean section 355, 360
- Gall-stones (Thudichum) 254, 263
- GALLWEY, carbonaceous matter from nares and intestines 269, 271
- Galvanic batteries, effects of different (Rosen-thal) 36, 46
- current, in paralysis agitans (Reynolds) 181, 199
- Galvanism, action of, on nerves (Beins, Halle, Rousseau) 36, 46
- introduction of substances into body by (Pelikan) 111, 113
- Ganglia, abdominal, sensibility of (Budge) 39, 50
- cardiac, influence on the movements of the heart (Wittich) 27, 31
- peripheral, in alimentary canal (Remak) 37, 46
- GANNAL, hydropisine 125, 133
- GARNIER, tannin in albuminous anasarca 253, 256
- GARROD, on gout 138, 142
- gouty inflammation 269
- Gas, carbonic oxide, toxic effects during pregnancy (Freund) 385, 389
- coal, toxic effects on pregnant women (Breslau) 385, 389
- do., accidental death from 467
- Gases, absorption and exhalation of, by blood and saline solutions (Fernet) 62, 65
- diffusion of, through moist membranes (Brimmeyer) 62, 64
- action of, on colour of goat's blood (Chevreul) 27, 33
- GASNE, insensible transpiration 77
- case of triplets 348, 349
- Gastric juice, influence of, on transformation of starch into sugar (Bardeleben) 69, 72
- acid of (Blondlot) 69, 71
- Gastric fever, nitro-muriatic acid in (Farre) 405
- Gastric fistula, artificial (Blondlot) 69, 71
- Gastritis, submucous (Wallman) 235, 242
- GAUCHET, tumours in pelvis 377, 379
- GAULTIER DE CLAUBRY, appearance of arms charged with gun-cotton, &c. 428, 431
- GEISSLER, hæmeralopia 326
- GEIST, effect of old age on the vital capacity 67
- composition of urine 95
- GELMO, measles 410
- GENDRON, calculi in case of vesico-vaginal hernia 298, 298
- dysphagia 235
- Generation and development* 117
- Generation, spontaneous (Bonifas) 117
- Generation, organs of* 93
- do. *female, physiology and pathology* 365
- do. *diseases of, in children* 407
- Generation, organs of, diseases of (Bierbaum) 407, 407
- Genito-urinary organs* 93
- GERHARDT, dulness-area of the heart 125, 135
- diseases of infancy 392
- GERLACH, histological researches 4
- structure of the cerebellum 37, 46
- on tactile papillæ 37, 47
- GERMANN, induction of labour 354, 357
- GESENIUS, catheterism of larynx 220
- do. 281, 281
- Gestation, prolonged (Liegard) 337, 338
- See *Pregnancy*.
- ovarian (Davis) 341, 343
- GESTIN, influence of hot climates on Europeans 125, 132
- GEUTEBRUCK, on anæsthesia 111
- Giddiness (Bang) 179, 186
- nervous (Simon) 179, 186
- GIGON, inferiority of pyrophosphoric acid as reagent for albumen 95, 103
- GILBERT, composition of animal food 68, 69
- GILLESPIE, hydrocele 304, 306
- rupture of bladder 299, 299
- GILLETTE, tartar emetic in chorea 179, 184
- do. 395
- Gingivitis, ulcerative (Delvaux, Henriette) 404
- GINTRAC, relations of varicella, variola, and varioloid 410, 412
- GIOPPI, aneurism of ophthalmic artery 327, 330
- GIORDANO, artificial premature labour 354, 357
- Cæsarean section 355, 360
- GIRALDES, glandular organ in spermatic cord 96, 104
- GIRAUD-TEULON, theory of "relief" in binocular vision 55
- GIROLAMI, insanity in the States of the Church 203, 205
- GIRDWOOD, diarrhoea and dysentery coetaneous with conception 236, 248
- do. 386, 390
- GJOR, nerve-disorders, from syphilis 179, 187
- formation of callus 310, 315
- Glands, inorganic constituents of (Oidtmann) 83, 89-91
- Glands, blood-* 83
- Glands of the gall-bladder (Luschka) 83, 89
- Glass tube in bladder of a boy (Cutler) 295, 297
- Glaucoma; iridectomy (Jaeger) 326, 329
- GLISCZYNSKI, placenta prævia 351, 351
- Glonoine, medicinal action (Brady) 178, 182
- Glucogenic function (Fuchs, Moreau) 82, 85
- Glucose in the body (Poiseuille) 82, 85

- Glucosuria in marsh fevers (Burdell) 254, 263
 GLUGE, on fatty liver and kidneys. 83, 87
 GLUGE and THIERNESSE, red colour of venous blood 77, 80
 Glycerine, preserving anatomical preparations with (Ambrosoli) 2, 6
 — in vulvar hyperæsthesia (Paupert) 381, 383
 Glycerine ointment for the itch (Bourguignon) 264
 Glycosuria of lying-in women (Brucke) 384, 387
 GODARD, monorchidism and chryptorchidism 304, 305
 — absence of testicle 415, 419
 GODEFROY, reposition of retroverted uterus 342, 345
 — incision of os uteri 353, 356
 — artificial premature labour . 354, 357
 GODFREY, internal uterine hæmorrhage 342
 GOLDBERG, case of twins 414
 — question of paternity 452, 453
 GOOCH, diseases of women 365, 366
 GOODFELLOW, drainage in empyema 221, 234
 GOODWIN, hæmaturia, cancer of bladder, &c. 253, 258
 GOSSELIN, inflammation of epiphyses 310, 312
 Gout (Garrod) 138, 142
 — treatment of (Gairdner) 139, 149
 — colchicine in (Gunsburg) 139, 150
 — rheumatic (Garrod) 138, 142
 Gouty inflammation (Garrod) 269
 GOUTAY, rachitis 408
 GRABBASHER, poisoning by arsenic 450
 GRADENWITZ, contraction of œsophagus 236, 244
 GRAEFKE, derangement of mutual vision 55
 — paralysis of the muscles of the eyeball 51
 — diphtheritic conjunctivitis 395
 GRAND-CLEMENT, juice of chelidonium majus in itching eruptions 266
 GRATIOLET. See *Leuret*.
 GREAVES, procidentia uteri 368, 370
 — retroversion of gravid uterus . 341, 345
 GREEN, antagonism of ague and phthisis 220, 225
 — femoral aneurism cured by pressure 306, 308
 — lesions of epiglottis 220, 224
 GREENHALGH, craniotomy 355, 361
 Greenwood, Amos, case of his unjust conviction for rape 454
 GRENSER, Dresden Lying-in Hospital 364
 GRESSY, imperforations of face 415, 419
 GREY, chloroform in chorea 395, 397
 GRIEPENKERL, ergot of rye 473, 474
 GRIESINGER, injection of nitrate of silver solution into the bronchi 219, 224
 GRIMSHAW, lectures on dental surgery 334
 GROENINGEN, artificial premature labour 354, 357
 GROESBECK, Cæsarean section 355, 360
 GROS, catheterism of larynx in croup 398
 Groux (M.), sternal fissure in (D'Espine, Ruhle) 25, 29
 Growth of animals, influence of light on (Dobell) 117, 120
Growths, new, and cysts 320
 GRUBER, mercury in syphilis 140, 162
 — See *Wenzel*.
 GRUNDER, vaccination 410
 Guanin in pancreas of the ox (Scherer) 84, 93
 — transformation into xanthic oxide (Strecker) 84, 93
 GUBLER, white blood-corpuscles in cachectic diseases 209, 216
 — alternating palsies 181, 195
 — thrush 404, 406
 GUERARD, nosological statistics of deaths 465
 — explosions of water apparatus for heating 467, 467
 GUERDAN, genesis of contagions . 477, 478
 — diarrhœa in children 404
 — premature labour, a substitute for craniotomy 354, 356
 GUERSANT, prolapsus ani in children 405, 406
 GUERTIN, normal rapidity of the pulse 26
 GUIET, pernicious fever in children 139, 146
 GUILLAUME, Cæsarean section 355, 360
 GUILLOT, development of the teeth 14, 19
 GULL, aneurism of cerebral vessels 180, 196
 — diseases in mediastinum, &c. 221, 234
 — factitious urticaria 265, 268
 GÜNKEL, analysis for picrotoxine in poisoning 445, 445
 GUNNING, cause of the movement of the blood 26, 30
 — do. 124, 128
 GUNSBURG, colchicine in gout 139, 150
 — dysphagia 235
 — epidemics of measles 410, 411
 GUNTER, cases in 'Pitha's Clinie' 320, 321
 GUNTHER, dysphagia 235
 GYYOMAR, contagious ophthalmiæ 325
 — contagious inflammations of the urethra 325
 HABER, action of woorara on the nerves 105, 109
 HABERSHON, &c., on dysphagia 235
 — pain as sign of disease of the stomach 237, 251
 — malposition of abdominal viscera 237, 251
 HABIT, Obstetric Clinic, Vienna 364
 HADAWAY, stillborn children 364
 Hæmadynamometer (Redtenbacher) 26, 29
 Hæmatemesis from varices in œsophagus (Le Diberder) 235, 244
 Hæmatine, diagnosis of (Heller) 427, 430
 Hæmatocele, peri-uterine (Becquerel, Gallard, Nonat) 377

- Hæmatocele, retro-uterine (Mahn, Trousseau, Voisin) . . . 377, 379-80
- Hæmatoma of dura mater (Schuberg) 181, 197
- Hæmaturia (Goodwin) . . . 253, 258
- Hæmeralopia (Geissler) . . . 326
- Hæmoptysis in case of aneurism of thoracic aorta (Gairdner) . . . 210
- Hæmorrhage from tonsil (Stanley) 306, 307
- do. arrested by per-chloride of iron (Thompson) . 278, 279
- into cerebellum (Hillairet) . 182, 203
- intraocular, after cataract extraction (Hildige) . . . 326, 329
- from clitoris during labour (Klaproth) 342
- post-partum (Blease, Lyall, Purefoy) 342, 347-8
- uterine (Godfrey, Plagge) . 342
- do. after delivery (Kunkler) 385
- do. digitalis in (Trousseau) 371, 373
- Hæmorrhoids, internal (Tilt) . 373, 376
- HAFNER, Cæsarean section; child saved 355, 360
- fracture of the skull . . 426, 428
- poisoning by arsenic . . 458
- dysphagia . . . 235
- HAIDENHAIN, absorption of fat . 74, 76
- on urari . . . 448, 449
- HALLE, action of galvanism on motor nerves 36
- HALLWACHS, origin of hippuric acid in urine of herbivora . . . 94, 100
- transit of succinic acid into the urine 94, 100
- See *Keferstein*.
- HAMERNIK, anatomy, &c., of the heart 28
- heart and its motion . . 125, 134
- HAMILTON, diseases of bones; operation 310, 314
- HAMMOND, excretion of phosphoric acid 95, 102
- vegetable diuretics . . 253, 255
- HAMON, cauterization in chorea . 181, 201
- hydatid mole, with albuminuria 351, 352
- HANCOCK, painful cicatrix and irritable stump 276, 276
- excision of ankle-joint . 312, 319-20
- gonorrhœal ophthalmia . 326, 327
- HANCOX, tubal pregnancy . . 340
- Hand, partial amputation of (Burgess, Eager, Solly) . . . 276, 277
- partial resection (Coulson) . 276, 277
- HANEMANN, artificial premature labour 354
- Hanging, medico-legal view of (Clement-Lacroix) . . . 427, 429
- HANNARD, first dentition . . 404
- HANNOVER. See *Eschricht*.
- hospital statistics . . . 2, 10
- HANSEN, ophthalmoscope . . 51
- HARDY, treatment of purpura hæmorrhagica by tincture of larch bark . 139, 144
- do. . . 409
- uterine polypus . . . 372, 375
- HARDY, diseases of the skin . 409
- Hare-lip (Friedberg) . . . 278, 279
- HARLESS, importance of the nerve-sheath 35
- molecular changes in nerve-substance 35, 45
- HARLEY (Dr. G.) *report on the institutes of medicine* . . . 1-123
- parasitic nature of diphtheria . 114, 117
- inoculation with diphtheritic exudation 235, 242
- tubal pregnancy . . . 340, 343
- treatment of tetanus by woorara poison 104, 106
- HARPER, more frequent use of forceps 355, 359
- HARRINSON, cases in obstetrics . 364
- HARRIS, morbus Brightii, with amyloid degeneration of Malpighian bodies 255
- HARTING, construction and application of the microscope . . . 3
- blood-corpuscles of the cryptobranchus japonicus . . . 28, 34
- HARTUNG, pouch of the sac in strangulated inguinal hernia . . . 289, 292
- HARVEY, bleeding and purging in acute hydrocephalus . . . 180, 191
- do. . . 395, 396
- steorrhœa nigricans . . . 264, 265
- transmission of syphilis from male to female parent . . . 365, 366
- Haschisch, poisoning by (Croudare, Schroff) 410, 440
- HASSALL, urine in health and disease 93, 106
- fungoid production in alkaline and albuminous urine . . . 114, 116
- HASSE, vesical catarrh, cured by cold water 253
- HASSING, mucous tubercles . 141, 176
- HAUGHTON, natural constants of healthy urine . . . 93, 97
- table of specific gravity of urine 97
- HAUNER, Children's Hospital, Munich 394
- croup . . . 399
- Dr. Luszinsky on croup . 398
- HAUSKA, on ravishing . . . 452, 453
- physiognomy of dead bodies . 427, 429
- HAUSMANN and BROCK, induction of labour by Cohen's method . . 354, 356
- HAWKINS, rupture of popliteal vessels 307, 309
- Head and neck, malformations, &c.* 278
- Head, injuries of (Murney) . 311, 316
- lesions of (Hafner, Kurner, Maschka, Roth) . . . 426, 428
- blow on, followed by cerebral symptoms (Parkes) . . . 178, 182
- Headache, consensual (Henoch) . 181, 201
- nervous, treated by hydrochlorate of ammonia (Barralier) . . 180, 192
- HEALE, vital causes . . . 2
- Health, houses in relation to (Druitt) 269
- Hearing, sense of* . . . 55

- Hearing, physiology of (Moorhead) 55, 56
 — organs of, in fish (Dumeril) 58
 — do. in the whale (Claudius) 56, 58
 — See *Ear*.
Heart 83
 Heart, anatomy, &c. (Hamernik) . 28
 — action of the (Bezold) . . 26, 31
 — do. (Eckhard) . . 27, 31
 — do. (Hamernik) . 125, 134
 — do. influence of cardiac ganglia
 on (Wittich) . . . 27, 31
 — do., influence of vagi on (Pfluger) 27, 31
 — do., diminution of, during forced inspira-
 tion (Brown-Séguard) . . 26, 30
 — do., duration after death (Vulpian) 26, 29
 — do. do. 125, 131
 — impulse of the (Chevenin - Conqueret,
 Colin, Gabriac) . . . 25, 29
 — sounds of, in health and disease (Flint)
 221, 233
 — do., foetal (Adams, Frankenhauser)
 338, 339
 — dulness-area of (Gerhardt) . 125, 135
 — valves of (Joseph) . . 83, 91
 — disease of (Barlow) . . 209, 216
 — do., influence of deep respiration on
 (Piorry) 125, 136
 — functional affection (Durrant) . 208
 — enlargement of (Barlow) . 209, 217
 — hypertrophy of, during pregnancy (Beau)
 209, 211
 — normal hypertrophy, in pregnancy (Lar-
 cher) 385, 388
 — irritability of (Arnold) . . 20, 22
 — laceration of coronary arteries of (Feign-
 eaux) 209, 218
 — rupture of (Feigneaux) . . 209, 218
 — do. (Markham) . . 208, 210
 — fatty, diagnosis of (Kennedy) . 209, 212
 — and kidney, connection between diseases
 of (Traube) 254, 262
 Heat-apoplexy (Longmore) . 179, 185
 — do. (Martin) . . 182, 190
 — of the body, connection with excretion of
 urea, &c., during ague (Ringer) . 94, 99
 — do. 141
 HEATH, strangulated umbilical hernia
 288, 290
 — calculus from urethra . . 300, 302
 HECKER, diagnosis of pregnancy . 337, 338
 — artificial premature labour . 354, 357
 — tubal pregnancy . . 118, 123
 — and KIFERLE, retroversion of gravid
 uterus 341, 344
 HECHT, coagulation of the blood . 27
 HEIBERG, operated valgus pedis . 331, 333
 Heidelberg University, Physiological Insti-
 tution of (Arnold) . . . 2
 HEIDENHAIN, physiology of the blood 27, 31
 — intermittent fever . . 139, 149
 — mechanical tetanomoter . . 35, 44
 HEINCKE and BUDGE, irritability of muscles,
 and its relation to rigor mortis . 24
 HEINEMANN, pneumogastric nerve 39, 50
 HELLER, examinations of urine . 171
 — simulated adulterations of urine 451, 451
 — hæmatine 427, 430
 HELMHOLTZ, telestereoscope . 55
 Hemisrania (Merz) . . 179, 186
 Hemiplegia, alternating, from affections of
 the pons (Gubler) . . 181, 195
 — syphilitic right (Robert) . 180, 193
 HENDERSON, moveable kidney in spinal dis-
 ease 254
 HENKE, movements of the eyelids . 51, 54
 — contractions of the tarsus 331, 332-3
 HENLE, text-book on the muscles . 20, 23
 HENNET, detachment of cæcum in conse-
 quence of intus-susception . 236
 — exfoliation of cæcal end of large gut
 286, 287
 HENNIGSON, contagiosity . . 477, 478
 HENOCHE, consensual headache . 181, 201
 HENRIETTE, ulcerative gingivitis . 404
 HENRY, urethrotomy for impacted calculus
 301, 303
 — (O.) mineral waters . . 477, 477
 HENSON (S.) imperforate hymen . 381, 383
 Hepatitis (Bertulus) . . 254, 260
 HERARD, dangerous jaundice . 253, 257
 HERGOTT, vesico-vaginal fistula . 381
 — ovariectomy . . . 376, 378
 — obstinate vomiting in pregnancy 386
 HERRMANN, physiognomy of sick children
 393
Hernia 288
 Hernia, congenital, with undescended testis
 (Erichsen) 288, 290
 — resection of omentum in (Paupert) 288, 289
 — radical cure (Davies) . . 289
 — do. (Lister) . . . 289
 — crural, through Gimbernat's ligament
 (Legendre) 288, 291
 — diaphragmatic, in infant (Widerhofer)
 416, 421
 — femoral and ventral (Davies) . 289
 — inguinal, reduced "en masse" (Dieulafoy)
 288, 291
 — do. caused by assault (Maschka)
 426
 — do. direct, in female (Curling)
 288, 290
 — scrotal, a second sac (Perrin) . 289
 — umbilical, of gravid uterus (Murray)
 385, 388
 — do. in foetus (Messer) . 416, 421
 — do. congenital (Debout) . 416
 — strangulated (James) . . 288, 289
 — do. in an infant (Ravoth) 288, 290
 — do. fæcal fistula after operation
 (Estevenet) 288, 291
 — do. crural (Schmidt) . 288, 291
 — do. inguinal (Adams) . 288, 291
 — do. do. in female (Musset)
 288, 290
 — do. do. pouch of the sac
 (Hartung) 289
 — do. do. (Heath) . 288, 290

- HERPIN, carbonic acid gas as an anæsthetic . . . 111, 113
 — salinum palustre in epilepsy . . . 197
 HERSCHEL, colour-blindness . . . 50, 52
 HESLOP, cerebro-spinal symptomatology of worms . . . 236, 248
 HESS, removal of breast . . . 383, 384
 HEUSNER, chemical analysis of the blood . . . 27
 HEWIT, high operation for stone . . . 295, 297
 HEWITT (Dr. Graily) *report on midwifery and diseases of women and children* 335-421
 HEWITT (Graily) hydatidiform or vesicular mole . . . 351, 352
 — relation of dropsy and scarlet fever 409
 — ovarian or abdominal sound . . . 377, 379
 HEWSON, nocturnal incontinence of urine in children . . . 253, 255
 HEXAMER, cholera infantum . . . 404
 HEYFELDER, diphtheritis of traumatic surfaces . . . 139, 150
 HEYMAN, beriberi . . . 141, 176
 HEYNSIUS, uræmic poisoning . . . 96, 104
 HICKS (B.) tests for the kiestine of pregnancy . . . 94, 98
 — do. . . 337, 339
 — ruptured uterus during parturition 342, 347
 HILDIGE, intraocular hæmorrhage from operation for cataract . . . 326, 329
 HILLAIRET, dysphagia . . . 235
 — hæmorrhage into the cerebellum 182, 203
 — and LUY, interesting nerve affections . . . 181, 198
 HILLIER, Diphtherite . . . 234, 239
 HINDS, paraplegia in relation to renal diseases . . . 253, 258
 Hip, contraction of (Friedberg) . . . 408
 — congenital dislocation (Voss) . . . 294, 294
 Hip-joint, congenital luxation (Jagielski) . . . 415
 — excision in caries of . . . 408
 Hip-bath (Sack) . . . 372, 375
 Hippuric acid in man (Mack, Weissmann) . . . 94, 100
 — in urine of herbivora (Hallwachs, Weissmann) . . . 94, 100
 HIRSCH, clinical fragments . . . 125, 136
 HIS, relations of ozone and blood . . . 27
 Histological researches (Gerlach) . . . 4
 Histology (Engert) . . . 3
 — human (Kölliker) . . . 3, 12
 Hoarseness, chronic, of children (Behrend) . . . 398, 401
 HOCHSTETTER, aliqua plantago in epilepsy . . . 395
 HODGE, hydrarthrosis of knee-joint 312
 HODSON, chlorine inhalation in diphtheria . . . 240
 HOFFMANN, on insanity and epilepsy in Frankfort Asylum . . . 203, 206
 HOFMANN, reply to Buchner's question on fatality of injuries . . . 422, 424
 — mental condition of persons committing arson . . . 458
 HOFMANN, sewage . . . 468, 468
 HOGG, vegetable parasites of skin . . . 113, 116
 HOLDEN, manual of dissection . . . 1, 5
 HOLL, whooping-cough . . . 219, 222
 HOLST, pregnancy, case of uterus bilocularis . . . 342, 348
 HOLT, puncture of bladder through rectum . . . 298, 299
 — polycystic ovarian tumour . . . 377, 379
 HOLTHOUSE, epilepsy; castration . . . 304, 305
 — poisoning by atropine . . . 437, 437
 HOLZBEECK, diseases of printers . . . 471
 HOOKER, division of popliteal nerve for neuralgia of the leg . . . 180, 195
 Hooping-cough, treatment (Holl) . . . 219, 222
 — do. (Whitehead) 219, 221
 — remedies (Atcherley, Beau, Schubert) . . . 399, 403
 — vaccination, a remedy . . . 220, 225
 — do. do. . . 399, 403
 HOPPE, tartar emetic, action on contractile tissues . . . 269, 272
 — recovery of nerves and muscles after section in poisoned animals . . . 105, 109
 — action of woorara . . . 105, 109
 HORN, medical profession in Prussia 463, 464
 HORNIDGE, poisoning by cyanide of potassium . . . 445, 446
 Horopter, determination of the (Claparede) . . . 55
 Horns, human (Edwards) . . . 264
 HORWITZ, tuberculous meningitis . . . 395
 Hospital statistics (Hannover) . . . 2, 10
 Hospitals, Russian, psychiatric communications from . . . 203, 205
 — do. civil, report on 465
 — Vienna General, report (Lebert) 140, 167
 — for children, reports (Fage, Hauner, Loeschner, Mauthner, Merel) 393-4
 HOUEL, adhesions of placenta . . . 414, 418
 — and ARNAULT, pseudencephalic fetus . . . 416, 420
 HOUGHTON, diphtheria . . . 140, 159
 HOWITZ, rapid increase of liver . . . 254
 HUBER, fissures in bones . . . 427, 429
 — case of poisoning not detected by analysis . . . 434, 435
 HUGHES, traumatic tetanus . . . 324, 324
 HUGUIER, hypertrophy of cervix uteri . . . 367, 369
 HULKE (J. W.) *report on surgery* . . . 273-334
 HULME, obstruction of lachrymal passages . . . 326, 327
 Humerus, excision of head of (Fergusson) . . . 311, 317
 HUMPHRY, human skeleton . . . 1, 5
 — formation of clots in venous system during life . . . 209, 214
 HUNTER, hypodermic treatment of diseases . . . 138, 144
 HUSBAND, public vaccination . . . 139, 147
 HUSCHKE, cranial rachitis . . . 408
 HUTCHINSON, report on favus . . . 264, 267
 — do. . . 410, 412

- HUTCHINSON, ulcerative stomatitis 234, 239
 HUTER, os uteri of primiparæ . 337, 338
 HUXLEY, development of the skeleton of fishes . . . 14, 17
 Hydatid cyst of the liver (Budd) . 253
 — do. puncture of, with capillary trocar (Moissenet) . 255, 263
 Hydrarthrosis of knee-joint (Hodge) 312
 Hydrocele (Gillespie, Young) . 304, 306
 — radical cure, with iron wire (Quinlan) . 304, 306
 — of tunica vaginalis (Very) . 305
 Hydrocephalic fœtus (Schultze) . 349, 350
 — hydrocephalus, diagnosis of, in breech presentation (Lizé) . 349, 350
 — congenital (Allix) . 416, 421
 — do. (Luton) . 415, 418
 — bleeding and purging in (Harvey) 180, 191
 — do. . 395, 396
 — croton oil in (Watson) . 180, 188
 — iodide of potassium in (Carson, Coldstream) . 395, 397
 — chronic (Philson) . 394, 396
 — do. injections of iodine in (Brainard) . 394, 396
 Hydrochloric acid in skin diseases (Klet-zinsky) . 264, 265
 — do. poisoning by (Budd) . 441, 441
 Hydrocyanic acid, action of (Kiedrowski) . 105, 110
 Hydrogen, introduction of, into cellular tissue and peritoneum (Leconte) . 77, 79
 — sulphuretted, poisoning with (Amelung) . 105, 110
 Hydromeningocele (Wallmann) . 395, 397
 Hydrophobia (Thamhayn) . 179, 187
 — case of (Wright) . 179, 185
 — cases, &c. (Ragsky, &c.) . 441, 441
 Hydrophone . 57
 Hydropisine (Gannal) . 125, 133
 Hydrorrhœa gravidarum (Braun) . 385, 388
 Hygiene and public health, report on 461
 Hygiene (Reich) . 461, 462
 Hygiene, public . 463
 — private . 461
 Hygiene, private (Chiapelli) . 463
 Hygiene of arts, trades, manufactures, and professions . 470
 Hygroma, congenital cystic (Luschka) . 414, 417
 Hymen, the (Thomas) . 381, 383
 — imperforate (Caillat, Henson, Paget) . 381, 383
 Hyperæsthesia of rachitic children (Betz) . 395, 397
 — of one side of face (Ogle) . 181, 202
 Hypertrophy of heart during pregnancy (Beau) . 209, 211
 — do. in pressure in aortic system (Beckmann) . 125
 Hypodermic treatment of diseases (Hunter) . 138, 144
 HYRTL, topographical anatomy . 1, 5
 HYRTL, abnormal number of aortic branches 27
 — perforating branches of middle meningeal artery . 27, 33
 — sterno-clavicularis muscle . 20, 24
 Hysteria, a mental and bodily disease (Camps) . 179, 182
 Hysterical anæsthesia (Briquet) . 180, 188
 — convulsions (Briquet) . 180, 194
 — tremor, difference from chorea (Trousseau) . 180, 188
 Icterus (Kuhne) . 254, 260
 — neonatorum (Moreau) . 405
 IDELER, dietetics . 461
 Idiocy, simulated (Zink) . 451
 Idiosyncrasies (Nunn) . 268
 Idiotism, in Silesia (Klose) . 478
 Ileum, adhesion of, to urinary bladder (Brug-noli) . 236, 245
 Ileus in a new-born child (Widerhofer) . 414, 417
 — from adhesion of ileum to urinary blad-der (Brugnoli) . 236, 245
 — do. . 286, 286
Illumination of private dwellings . 463
 Imperforations of the face (Gressy) 415, 419
 — See *Atresia*.
 Impotence, questions of, &c. (Casper) 453
 Indian mutiny, wounds in (Williamson) . 273
 Indican in blood and urine (Carter) 94, 97
Infanticide . 455
 Infants, hygiene of (Ammon, Barker, Chan-cerel, Declat, Meier) . 392-3, 394
 — diseases of (Condie, Gerhardt, West) . 392-3, 394
 — new theory of diseases of (Ballard) 403, 405
 Infection, putrid or septic (Panum) 140, 155
Inflammation . 274
 Inflammation, origin of, in arterial system (Schroeder) . 269, 271
 — Virchow's theory of the process of 12
 — essence of (Ranzi) . 124, 130
 — early stages of (Lister) . 125, 130
 — influence of nerves on (Samuel, Snellen) . 124, 128-9
 — from nervous irritation (Samuel) 269
 — of articular cartilage (Barwell) . 14, 18
 — of thoracic duct (Worms) . 210, 218
 — intervertebral (Lambl) . 341, 344
 — acute, of parotid gland (Virchow) 235, 241
 — of vena porta (Steinberg) . 237, 251
 — parenchymatous (Virchow) . 124, 130
 — treated by digital compression (Vanzetti) . 209, 215
 — do. . 274, 275
 — digitalis in (Schneider) . 139, 147
 Inhibitory influence (Jones) . 35, 40
 — do. . 178, 182
 Injuries, serious (Casper) . 425
 INMAN, influence of vitality on secretion and excretion . 77, 78
 — remarks on ditto. See *Spender*.

- Inoculation of diphtheritic exudation (Harley) . . . 235, 242
- Insanity, statistics of (Robinson) . . . 204
- medico-legal questions on (Casper) . . . 459
- do. in Russia . . . 203, 205
- do. in States of the Church (Girolami) . . . 203, 205
- Insects, ova and pseudova of (Lubbock) . . . 117, 122
- Inspiration, effect on the heart and pulmonary artery (Da Costa) . . . 209, 213
- Intelligence and life (Flourens) . . . 2
- Intermittent fever (Heidenhain) . . . 139, 149
- ligature of limbs in (Brau) . . . 139, 150
- Intestines, influences of pneumogastric and splanchnic nerves on movement of (Kupffer) . . . 39, 50
- nerves of the (Billroth) . . . 37, 46
- affections of, in children (Clar) . . . 405
- Intestinal catarrh, chronic (Wolff) . . . 237
- Intestinal obstruction from adhesions, &c.* . . . 286
- Intestinal obstruction (Brinton) . . . 235, 240
- do. case of (Sturges) . . . 236, 250
- do. and stercoraceous vomiting (Easton) . . . 236, 247
- Intestine, large, physiology of (Colby) . . . 69
- small, twisted on its axis, with obstruction (Streubel) . . . 236, 245
- do. do. (Streubel) . . . 286, 286
- do. impaction of with lumbrici (Cox) . . . 236, 247
- Intus-susception (Betz, Frommann) . . . 236, 245
- do. 286, 287-8
- case of (Steele) 235, 243
- detachment of cæcum from (Hennet) . . . 236
- do. (Hennet) 286, 287
- INZANI, neuralgia of lingual nerve . . . 194
- Iodide of sodium (Ure) 139, 154
- Iodine injections, in bony changes and abscesses (Berend) 311, 317
- in cyst in the orbit (Wordsworth) . . . 327, 330
- in chronic hydrocephalus (Brainard) . . . 394, 396
- action on carious bone 317
- Iodized food, in scrofula (Lebert) . . . 140, 167
- Iritis, suppurative (Daniell) 326, 330
- Iron, perchloride of, in hæmorrhage from tonsil (Thompson) 278, 279
- Irradiation (Volkmann) 52, 55
- Irritability (Bernard) 36, 46
- of muscles (Heincke) 24
- Irritable stump (Hancock) 276, 276
- Itch, glycerine ointment for (Bourguignon) . . . 264
- Jäser's ointment 266
- JACKSON, abscess of liver 253, 257
- gun-shot wound of heart 285, 285
- cold affusion in narcotic poisoning . . . 269, 271
- oxide of zinc in the sweats of phthisis . . . 253, 255
- JACOBOWITSCH, nervous system of different animals 37
- on examining microscopically the brain and spinal cord while fresh . . . 37, 46
- do. critique on ditto by Owsjannikow . . . 37, 47
- JAEGER, glaucoma; iridectomy . . . 326, 329
- JAGIELSKI, congenital luxation of hip-joint . . . 415
- JAGO, entopics 50, 53
- JAMES, strangulated hernia 288, 289
- JASCHKOWITZ, on the splenic plexus . . . 39, 50
- JÄSER, itch ointment 266
- Jaundice, dangerous (Herard) . . . 253, 257
- epidemic (Ballot) 254
- Jaws, tumour of 311, 316
- Jaw, upper, disease of, removal (Quinlan) . . . 311, 317
- lower, bone abscess in (Nussbaum) . . . 311, 316
- do. necrosis of, from phosphorus (Coote) . . . 311, 316
- JEAFFRESON, syphilitic laryngitis . . . 281, 282
- JEITTELER, who discovered reflex action? . . . 38, 49
- JENDRASSIK, anatomy of thymus . . . 397, 400
- JESSEN, mental diseases as reason for divorce . . . 422, 424
- JESSOP, recession of eruption in scarlet fever . . . 409, 411
- JOBERT DE LAMBALLE, polypi of nose and fauces 278, 280
- JOCOLUCCI, synchondrotomy 356, 362
- JOHNSON, Bright's disease 255
- encephaloid cancer of testicle retained in abdomen 255
- laceration of lung without fracture of ribs . . . 285, 286
- sebaceous tumour; perforation of cranium . . . 320, 321
- malignant tumour of the arm . . . 276, 277
- Joints, contractions of (Henke) . . . 332-3
- Joints, diseases and injuries of* 310
- Joints, diseases of (Bonnet, Bryant) . . . 310, 314
- injuries and diseases (Bryant) . . . 311, 318
- hysterical affections of (Skey) . . . 310, 315
- inflamed, stretching and cauterization in (Bonnet) 310, 314
- JOLLY, entozoa in the heart of the seal . . . 114, 117
- JOLY, suppression of lochia 387
- JONES (Handfield) *report on practical medicine, pathology and therapeutics* . . . 124-272
- inhibitory influence of nerves . . . 35, 40
- do. 178, 182
- nerve disorder 179, 183
- (P.) catalogue of St. Thomas's Hospital Museum 3
- (Wharton) unguentum sulphuris in granular ophthalmia 326, 328

- JOSEPH, valves of the heart . 83, 91
— physiological action of corrosive sublimate 105, 110
- Kamala as a vermifuge . 405
- KAMMLER, power of different parts of the skin in detecting slight weights . 59, 61
- KAPLER, spontaneous rupture of uterus 342, 346
- KEEN, convulsions during pregnancy 386, 389
- KEFERSTEIN and HALLWACHS, action of pancreatic juice on albumen . 68, 70
- KELLY, recurrence of retroversion of uterus 368, 370
- KEMP, function of mucous membrane of the gall-bladder . 83, 88
- KENNEDY, change of type in disease 139, 145
— mercury in albuminous urine . 253, 258
— diagnosis of fatty heart . 209, 212
— tumours in the stomach . 235, 239
- KERLI, croup . 398
- KERSCHENSTEINER, incubation of measles 410
- KESTEVEN, rape on infants . 453, 454
- KEYSER, pleurisy of right side, &c. 220, 225
— pleurisy of pulmonary artery . 220, 229
- KIDD, chloroform in midwifery . 362, 363
— hysterical puerperal convulsions 178, 182
— do. . 386, 390
— distortion of features . 394, 396
- Kidney, straight vessels in pyramids of (Beale) 94, 98
- Kidneys, diseases of, in children* . 403
- Kidneys, diseases of (Bierbaum) . 407, 407
— two conditions of, giving rise to Bright's disease (Dickinson) . 253, 256
— cancer of (Goodwin) . 253, 258
— fatty (Gluge) . 83, 87
— moveable, with spinal disease (Henderson) 254
— congenital malformation (Senftleben) 415, 419
— effect of stimuli applied to (Vulpian) 26, 30
- KIEDROWSKI, action of hydrocyanic acid 105, 110
- Kiesteine of pregnancy (Hicks) . 94, 98
— do. . 337, 339
- KIFERLE. See *Hecker*.
- King, (Dr.) poisoning of his wife by arsenic 434, 436
- KINLOCH, surgical cases . 310, 315
— resection of knee-joint . 312, 319
- KINN, ascites terminated by serous flow from breasts . 253, 255
- KINNELL, ventilation . 467, 467
- KIRSTELLER, forceps operations . 355, 359
- KIRSTEN, chloroform as an anæsthetic 111
- KLAATSCH and STICH, locality of taste 58
- KLAPROTH, hæmorrhage from clitoris, in labour . 342
— fibroid tumours of uterus, in labour 342, 348
- KLETZINSKY, animal chemistry . 3
— influence of benzoic acid on tissue 95, 103
— hydrochloric acid in skin disease 264, 265
— presence of xanthic oxide . 94, 101
— analysis for phosphorus in poisoning 444, 444
- KLINGNER, composition of human urine 95
- KLOB, degeneration of sub-mucous coat of stomach . 236, 246
- KLOSE, separation of epiphyses . 310, 312
— do. . 408
— idiotism in Silesia . 478, 478
- Knee, injury from fall upon (Maschka) 427
- Knee-joint, loose cartilage from (Webb) 14, 18
— hydrarthrosis of (Hodge) . 312
— strumous disease (Erichsen) . 312, 318
— penetrating wound of (Coulson) 312
— surgical openings into (Adams) . 312, 319
— See *Excision*.
- KNOLZ, noxious influence of the Wien River 467, 468
- KNOX, relation of anatomy to physiology and pathology . 1
- KOCH, retention of dead fœtus . 349
- KOEBERLE, death of fœtus in utero 351, 353
- KOECHLIN, cerebral tuberculosis in children 395
- KOHLER, presence of allantoine in urine 94, 101
— relative absorption in animals fasting and digesting . 74, 76
— opisthotonos in children . 394, 396
- KOHNHORN, artificial production of cataract 74, 77
- KOLISKO, continuous murmur in the neck 209, 212
- KÖLLIKER, human histology . 3, 12
— vitality of the nerve-fibres . 35, 44
— structure of osseous fishes . 13, 15
— on urari . 448, 449
— action of the upas antiar . 448, 448
— physiological experiments with woorara 105, 108
— vegetable parasites in hard structures of animals . 113, 115
— and PELIKAN, alcoholic extract of tanguinia venenifera . 105, 110
— See *Pelikan*.
- KOLLOCK, chancre of uterus . 372, 374
- KORTÜM, treatment of croup . 398
- KOSCHATE, signs of death . 481
- KÖSTLIN, measles . 410, 411
- KOTTMEIER, ligature of hepatic vessels 83
- KRABBE, phosphates . 95
- KRIEGER, atresia ani, &c. . 415, 419
- KRAUSE, mode in which nerves terminate 37, 47
— do. remarks on, by Luschka 37
- KRAUSS, legal responsibility of a libeller 459
- KROPF, medical topography of Bavaria 465

- KROS, obliquely distorted pelvis . 341, 343
 KRÜGELSTEIN, doctrine of priority of death
 . 427, 429
 — medical inspection of bread . 473, 473
 — on purity of beer . 476
 — hygiene of trade in mattresses, &c. 477, 478
 KÜCHENMEISTER, parasites of human body
 . 114
 KÜCHLER, oblique illumination of the eye in
 diagnosis . . . 326, 330
 — ruptured perinæum . . 381
 KUHNE, on icterus . . 254, 260
 — development of rigor mortis . 24, 25
 KUNKLER, uterine hæmorrhage . 385
 KUPFFER, power of muscles over local action
 of electricity . . . 20, 22
 — and LUDWIG, influence of the pneumo-
 gastric and splanchnic nerves on the move-
 ments of the intestines . . 39, 50
 KÜRNER, legal responsibility in conviction
 for arson . . . 458
 — observations from the Criminal Court
 . 426, 428
 KUSSMAUL, emigration of the human ova
 . 118, 123
 — migration of ova, cause of tubal pregnancy
 . 340, 343
 — death of the limbs . . 24, 25
 — death of limbs from injection of chloro-
 form into arteries . . 125, 131
 — uterus unicornis . . 367, 368
 KÜTTNER, influence of sex on diseases of
 children . . . 392
 — dystrophy of children . . 404
 — scarlet fever and measles . 410
 LABORDE, chlorate of potash . 148
 Labia majora, atheromatous cyst of (Paravi-
 cini) . . . 381
 Labour. See *Parturition*.
 Lachrymal passages, obstruction of (Hulme)
 . 326, 327
 Lactation, defective (Routh) . 383, 384
 — of infants (Amblard, Naudeau, Patron)
 . 393
 Lacteal circulation, origin of (Reclam) 74, 76
 Lacteals, absorption by (Meder) . 74, 76
 — of birds (Basslinger) . . 74, 76
 LADREIL, cysts of vagina . . 381, 383
 LAMBL, intervertebral inflammation 341, 344
 Lamellibranchiate molluscs, aquiferous and
 oviductal systems of (Rolleston) . 117, 121
 Lancet commission on diphtheria . 139, 152
 LANDELL, internal use of vaccine lymph
 . 410
 LANDRY, acute ascending paralysis 181, 198
 LANG, medico-forensic case . 459
 LANGENBECK, uterine fibrous tumours
 . 372, 374
 LANKESTER, food collection in South Ken-
 sington Museum . . 68
 — parthenogenesis in plants and animals
 . 118
 Larch bark, use in pulmonary hæmorrhage
 (O'Daly) . . . 221, 234
 — tincture in purpura hæmorrhagia (Hardy)
 . 139, 144
 LARCHER, normal hypertrophy of heart
 during pregnancy . . 385, 388
 LARDNER, chemistry for schools . 3, 11
 Larvæ, diphtherous, in nasal fossæ, and their
 effects (Coquerel) . . 221, 230
 Laryngitis, acute, laryngotomy (Bulley)
 . 220, 227
 — do. . . 281, 282
 — chronic, tracheotomy (Barker) . 281, 282
 — syphilitic (Jeaffreson) . . 281, 282
 Laryngotomy in syphilitic gangrene of
 mouth (De Meric) . . 278, 279
 Larynx, abscess in, after typhoid fever
 (Schiele) . . . 220
 — contraction of (Oppolzer) . 220, 224
 — chronic ulceration of (Porter) . 281, 282
 — catheterism of (Gesenius) . 220
 — do. . . 281, 281
 — speculum for (Czermak, Price, Turk) 62, 67
 — do. (Czermak, Funk, Semeleder, Stork)
 . 126, 137
 — do., in diseases of the tongue (Semeleder)
 . 220, 229
 LASSAIGNE, spermatic stains . 427, 431
 — antimony in dead body after poisoning
 . 434, 434
 — poisoning by corrosive sublimate 441
 — poisoning by phosphorus . 444, 445
 LAVERAN, epidemic ophthalmia . 478, 479
 LAWSON, fractured femur in a child 310, 315
 — yellow fever in Jamaica, 1856 . 140, 172
 LAYCOCK, against opium and stimulants in
 delirium tremens . . . 188
 — parasitic nature of diphtheria . 114, 117
 Lead, elimination from the system (Bacon)
 . 269
 LEARED, pepsin . . . 236, 246
 — treatment of tapeworm . . 234, 239
 LEBERT, internal otitis . . 395
 — scrofula cured by iodized food . 140, 167
 — Vienna General Hospital Report 140, 167
 LECONTE, calculation of urea by hypochlorite
 of soda . . . 95, 103
 — and DEMARQUAY, introduction of air,
 oxygen, &c., into the cellular tissue and
 peritoneum . . . 77, 79
 Lectures, &c. . . . 1
 LEDERLE, cases of suicide . . 451, 452
 LE DIBERDER and FAUVEL, hæmatemesis
 from varices in œsophagus . 235, 244
 LEE (R.), clinical midwifery . 364
 LEE (H.), syphilitic inoculation . 321, 321
 — varicocele; section of veins . 304, 305
 LEES, enlargement of spleen . 254
 LEFORT. See *Poiseuille*.
 LE GENDRE, homolographic surgical anatomy
 . 1
 — crural hernia . . . 288, 291
 — vaccination for removal of nævi materni
 . 400, 403

- LEGROUX, puerperal fever . . 386, 391
 — shampooing in sclerema . . 410
 LEHMANN, animal chemistry . . 3, 11
 — saccharine function of the liver . 82, 85
 — inorganic food and earthy phosphates in food of young animals . . 69, 72
 — table of results of his experiments . 73
 — catarrh of the stomach . . 235, 241
 — craniotomy and turning . . 355, 359
 — obstetric reports . . 387
 — rupture of uterus and vagina . 342, 345
 LEHWESS, disinfectants for animal poisons . 269, 270
 LEIBEN. See *Behrend*.
 LEISTNER, poisoning by hyoscyamus 437, 438
 LEMAIRE, musical murmur, connected with cirrhotic liver . . 229
 LENHOSSEK, double spinal cord . 414, 417
 Leniceps (Mattei) . . 355, 359
 LEROY D'ETIOILLES, stricture of urethra; urethrotomy . . 300, 302
 LESURE. See *Rousseau*.
 LETOURNEAU, new-born children . 393
 — do. . 410, 412
 LEUBUSCHER, epidemic of scarlet fever . 409, 411
 — pathological development of connective tissue in the brain . . 124, 127
 LEUCKART, development of the pentastoma tænioides . . 114
 Leucocythemia splenica and lymphatica (Wilks) . . 254
 LEUPOLDT, lung test . . 455, 457
 LEURET and GRATIOLET, comparative anatomy of the nervous system . 36, 46
 LEUTE, menstruation during pregnancy . 371, 373
 Levator ani, the male (Luschka) . 20, 23
 — female (Luschka) . . 20, 23
 LEVICK, sun-stroke . . 180, 189
 LEVINART, mental state of murderer 458
 LEVISON, echinococci . . 114
 LEVY, ciliary muscle . . 51, 54
 — chloroform in midwifery . 362, 362
 — embryotomy . . 356, 361
 LEWINSKY, poisoning by phosphorus 444, 445
 LEWISON. See *Budge*.
 LIEBIG, letters on chemistry . . 3, 11
 — creatine and cynuric acid in urine of the dog . . 94, 100
 LIEGARD, prolonged gestation . 337, 338
 LIEGEOIS, physiology of the facial nerve . 39, 50
 Life, animal (Frey) . . 2
 — facts and laws of (Reynolds) . 2
 — and intelligence (Flourens) . 2
 Ligaments of pericardium (Luschka) 26
 Light, appearance of, in the eye (Willigen) . 51, 54
 — influence of, on growth of animals (Dobell, Beclard) . . 117, 120
 Lightning, accident by (Fleming) . 180, 195
 LILJEBORN, vomiting of blood from ulcers in duodenum . . 236, 247
 Limbs, death of, by injection of chloroform into arteries (Kussmaul) . 125, 131
 Lime, saccharated, in medicine (Cleland) . 268
 LINATI, electro-physiology . . 36
 LINHARDT, fracture of lower jaw by explosion of pistol . . 451
 LINHART, anatomy of the anus . 20
 LISTER, physiology and pathology . 2, 6
 — early stages of inflammation . 125, 130
 — coagulation of blood . . 25, 29
 — radical cure of hernia . . 289, 292
 — excision of patella . . 312, 319
 — and TURNER, structure of nerve-fibres . 37, 47
 Lithotomy (Smith) . . 295
 — statistics of . . 295, 296
 — different modes of . . 295, 296
 — and after-treatment (Wise) . 295, 295
 — in children (Adams) . . 295, 296
 — high operation (Hewit) . . 295, 297
 — Allarton's operation (Brown, Browne) . 295, 296
 — median (Wheelhouse) . . 295, 296
Lithotomy and Lithotrity . . 295
 LITTRÉ, artificial anus . . 405
 LITZMANN, uræmia during pregnancy . 385, 389
Liver . . 82
 Liver, table of analyses of . . 90
 — inorganic constituents (Oidtmann) . 83, 89-91
 — saccharine function (Lehmann, Moos) . 82, 85
 — effect of stimuli applied to (Vulpian) . 26, 30
 — artificial formation of substances in (Schottin) . . 82, 87
 — difference of, in animals fasting and digesting (Nasse) . . 83, 87
 — influence of deep respiration on diseases of (Piorry) . . 125, 136
 — blood and pus in, discharged into intestinal canal (Dufresne) . . 235, 243
 — rapid increase of (Howitz) . 254
 — abscess of (Jackson) . . 253, 257
 — acute atrophy of (Pleischl, Schnitzler) . 254, 259
 — hydatid cysts of, puncture of (Moissenet) . 255, 263
 — cystic disease, in fœtus (Smallman) . 414, 417
 — fatty (Gluge) . . 83, 87
 — waxy (Fournier) . . 254, 259
 — ligaturing of hepatic vessels (Kottmeier) . 83
 LIVINGSTONE, on the Tsétsé . 104, 106
 — African fever on Zambesi . 469, 470
 LIZÉ, diagnosis of hydrocephalus in breech presentation . . 349, 350
 — pelvic presentation, emphysematous fœtus . 348
 Lochia, suppression in puerperal diseases (Joly) . . 387

- LOESCHER, double-headed monster, 349, 350
 LOESCHNER, children's hospital, Prague 393
 LOHR, sphere of medical police . 463, 464
 LOISEAU, tannin and alum in membranous angina 219, 223
 LONG, tinct. aconiti in fever from catheterism 259
 LONGET, treatise on physiology . 2, 9
 LONGMORE, heat-apoplexy . 179, 185
 LORINSER, diagnosis of syphilis . 141, 176
 — and REDER, mercury and syphilis 140, 156
 LOTZBECK, congenital tumours . 413, 414
 LÖWE, parasitic fungi . . 114, 116
 — parasitic diseases . . 264
 — age of a child . . . 455, 457
 LÖWENHARDT, if life and breathing identical 455, 457
 — conditional legal responsibility . 457, 460
 LOWENTHAL, delicate test for sugar 95, 102
 LOWINSOHN, action of the pneumogastric in respiration 39, 49
 LUBBOCK, ova and pseudova of insects 117, 122
 LUBIMOFF, apparent size of objects 52, 54
 Lucifer-match manufacture . 470
Lucilia homini vorax, insect in nasal fossæ 230
 LUCIUS, electricity locally applied . 35
 LUDKIEWICK, vapour of heated wine in obstinate eruptions . . 264, 266
 LUDWIG, physiology of endosmose . 74
 — text-book of physiology . . 2, 8
 — See *Kupffer*.
 — and SPIESS, difference in temperature of the saliva from the submaxillary gland and the carotid blood . . 78, 81
 Lumbrici, impaction of small intestine with (Cox) 236, 247
 LUMPE, artificial premature labour 354, 357
 — rupture of ovarian cyst . 376, 378
 Lunatic asylum at Astino, report (Brugnoni) 203, 206
 — at Frankfort, report (Hoffmann) 203, 206
 Lungs, anterior margin of (Luschka) 83, 91
 — blood-vessels of (Waters) . 25, 28
 — laws of the capacity of (Rameaux) 67
 — vital capacity of (Arnold, Geist, Schnepf) 67
 — do. (Schnepf) 126, 136
 — excretion of solids by (Wiederhold) 62, 64
 — changes in, from disease of mediastinum (Gull) 221, 234
 — influence of deep respiration on diseases of (Piorry) 125, 136
 — laceration, without fracture of ribs (Johnson) 285, 286
 — softening of, in infants (Rauchfuss) 398, 401
 Lung-test of life in new-born infants (Ancelot, Leupoldt, Vogler, &c.) . 455, 457
 LUNN, compound fracture of skull; trephining 311, 316
 Lupus, treatment of (Valerius) . 264
 Lupus erythematodes (Poor) . 264
 LUSCHKA, human lachrymal bones . 13, 16
 — glands of the human gall-bladder 83, 89
 — female levator ani . . . 20, 23
 — congenital cystic hygroma . 414, 417
 — ligaments of the pericardium . 26
 — anterior margin of the lung . 83, 91
 — human transversus colli muscle . 20, 23
 — remarks on Krause's paper on mode in which nerves terminate . . 37, 48
 — cervical ribs 13
 — synarthrosis of the body . . 13, 16
 — position of anterior mediastinum 125, 136
 — male levator ani . . . 20, 23
 LUSZINSKY, children's hospital, Vienna 393
 — croup 220, 225
 — iodide of potassium in croup . 399
 LUSSANA, physiology of some nervous diseases 38, 49
 LUTON, congenital hydrocephalus . 415, 418
 LUYB. See *Hillairet*.
 LYALL, post-partum hæmorrhage . 342, 347
 Lying-in hospitals (Villeneuve) . 387
 Lymphatic circulation (Reclam) . 74, 76
 — glands, enlargement of (Pavy, Wunderlich) 254, 261
 MACARIO, turpentine-vapour baths 269, 270
 M'CLELLAND, successful Cæsarean section 355, 360
 M'CLINTOCK, scarlatina after parturition 385, 388
 — inverted uterus, extirpation . 368, 371
 M'DONNELL, diabetic sugar in the animal economy 82, 84
 — vaccination in Ireland . . 480, 481
 M'Ewen, stone in bladder of female 298, 298
 MACGHEE, vesico-vaginal fistula . 380, 382
 — traumatic tetanus . . . 324, 324
 MACK, origin of hippuric acid in the animal economy 94, 101
 MACKENZIE, cancer of uterus and rectum; abortion 354, 358
 — craniotomy and turning . . 355, 358
 M'KIDD, invagination of cæcum . 286, 287
 MACKINDER, occlusion of pulmonary arteries after parturition . . . 385, 388
 MACLACHLAN, acranial foetus . 415, 418
 M'RUER, ulceration of os and cervix uteri 373, 376
 MADGE, anatomical relation of mother and foetus 335, 335
 — arm presentation 348
 MAGITOT, development of the teeth 14, 19
 MAHN, retro-uterine hæmatocele . 377
 MAHNERT, mental condition of woman accused of arson 458
 MAIER, polypi in uterus . . . 372, 375
 MAIR, wounds in general . . 425, 428
 — legal responsibility . . . 457, 460
 MAISONNEUVE, amputation by diacsis 275, 275
 MAJER, sanitary condition of the Penitentiary, Lichtenau . . . 465

- MAJER, fluctuation of population in Franconia, &c. 465
- MAJEWSKI, allantoid and amniotic fluids 78, 82
- MALAGO, tænia 409, 411
- Malarious affections (Peacock) 141, 173
- Malformation, double (Ramis) 349, 350
- Malformations of fœtus, &c.* 414
- Malformations of urinary organs (Duncan) 415, 419
- MALMSTEN. See *Schönheit*.
- Malpighian bodies, amyloid degeneration of (Harris) 255
- Malpraxis, obstetric (Busch) 428, 431
- Man and animals, difference between (Bischoff) 2
- MANDL, fumigations in bronchitis 219, 224
- Mania, medical relations of (Richter) 458
- puerperal (Marcé) 386, 390
- Maniacal excitement (Schlager) 203, 204
- MANNHART, accommodation of the eye 51, 54
- answer to do. See *Müller*.
- Man slaughter* 424
- Manuals, &c.* 1
- MANSO, water baths in operation wounds 275, 275
- MANZ, accommodation of the eyes of fish 52, 54
- MARACACCI, blennorrhœal inoculation in pannus 326, 327
- MARAGLIO, death of a primipara 386
- MARCÉ, state of mental powers in chorea 181, 200
- puerperal mania 386, 390
- chronic alcoholic intoxication 139, 154
- MARCUS, tapeworm after use of raw meat 405
- MARDUROWICZ, turning of facial into pelvic presentation 354, 358
- MAREY, circulation of the blood 26, 29
- hydraulic interpretation of the double pulse 26
- MARKHAM, bleeding in diseases 138, 144
- cardiac diseases; pericarditis 209, 215-17
- rupture of the heart 208, 210
- MARNITZ, twins united at trunk 349, 350
- Marsh fevers (Berchon) 139, 147
- glucosuria in (Burdell) 254
- MARSHALL, vesico-vaginal fistula 380, 382
- MARTIN, heat-apoplexy 182, 190
- diseases of the eye 325
- spontaneous amputation in fœtus 415, 418
- four children at a birth 348, 349
- incontinence of urine after labour 385
- inflammation of Fallopian tubes 387, 392
- danger of chloroform 180, 190
- obstetrical clinic of Jena 364
- MARTIN-MAGRON. See *Rousseau*.
- MARTINI, effect of santonine on the vision 52, 54
- extirpation of the spleen 255
- tracheotomy 220, 226
- do. 281, 281
- MARTINS, thoracic and pelvic members in man and animals 13, 17
- MARX, case of triplets 348, 349
- MASCARI, puerperal fever 387
- MASCHKA, criminal abortions 456
- blood-like stains 427
- breathing, as test of life in infants 456
- dislocation of second vertebra of neck 427
- medico-juridical examinations 425
- post-mortem examinations 427
- do. of infants 455
- examination of lunatics 459
- fatal injuries of the head 426
- inguinal hernia 426
- fall upon the knee 427
- lesions on living persons 425
- metallic mercury given in coffee to a tuberculous child 441
- state of mind of persons accused of arson 458
- cases of stuprum 452
- ill-treatment of man with disease of the heart 425
- ill-treatment of a factory woman 425
- MASON, practical obstetrics 364
- MATTEI, leniceps 355, 359
- yearly ripening of ova 365, 365
- diagnosis of pregnancy 338
- exuded plastic lymph, cause of puerperal fever 386, 391
- MATTEUCCI, electro-physiology 36
- MAUNOURY, induction of labour by warm injections 354, 357
- MAUTHNER, children's hospital, Vienna 393
- MAY, diphtheria 141, 176
- MAYDELL, repeated death of fœtus 385, 387
- MAYER, glycerine in croup 399, 402
- artificial premature delivery 354, 357
- Zwanke's pessary in prolapsus 367, 369
- syphilis in children 413
- MAYNE, cerebro-spinal meningitis 181
- MAYR, diseases of children 393
- erythema nodosum 410, 412
- MEACHAM, rupture of uterus 342, 347
- MEADOWS. See *Ogle*.
- Measles (Gelmo, Gunsberg, Kerschensteiner, Koestlin, Schutz, Trousseau) 410, 411
- hæmorrhagic (Veit) 139, 150
- do. 410, 412
- consecutive effects of (Scoutetten) 264, 268
- Meat, raw, use in diarrhœa of infants (Weisse) 236, 246
- do. 405, 406
- Meconium, obstruction by (Barnes) 405, 406
- MEDER, absorption by the lacteals 74, 76
- Mediastinum, position of anterior (Luschka) 125, 136
- Medical laws of Nassau (Vogler) 463, 463
- notes from the Continent (Mercer) 268
- Medical profession, laws concerning* 463

- Medical profession in Prussia (Horn) 463, 464
Medical statistics and topography 465
Medicine, institutes of, report on, by G. Harley, M.D. 1-123
— *practical, report on, by Handfield Jones, M.B.* 124-272
— *legal, public hygiene, and dietetics, report on, by William Odling, M.B.* . 422-483
— *do. treatises and text-books* . 422
Medicine, legal (Casper, Wald) . 422, 423
— *do. pamphlets on (Albert, Buchner, Hofmann, Nusser, Bocker)* . 422, 424
— *state, in France (Wernert)* . 463, 464
— *chemistry applied to (Capezzuoli)* 3
Medicines, external use (Thomson) 265, 266
Medulla oblongata, minute structure (Schroeder v. der Kolk) 35, 40
MEIER, infant's first year 393, 394
— pulsating tumour of bones of pelvis 310, 313
MEIGS, coryza of children 398
— diseases of children 393
MEISSNER, involuntary muscular fibres during contraction 20, 22
— cases of deformed pelvis 341, 344
— See *Babo*.
Melanæmia (Wilks) 254
Melanotic cancer, diagnosis by urine (Eiselt) 139, 149
MELSSENS, persistence of impressions on the retina 51, 54
— nicotine in dead bodies 442, 443
Membranes, diffusion of gases through moist (Brimmeyer) 62, 64
Membrane, mucous, of gall-bladder, function of (Kemp) 83, 88
— *do. of urethra, &c. (Patron)* 293, 293
MENGES, state medical statistics . 463, 463
Meningeal effusion, sanguineous (Wilks) 180, 195
Meningitis, infantile (Facen, Horwitz) 395
— cerebro-spinal (Mayne) 181
— tuberculous (Bang) 394, 396
Menorrhagia, &c., arsenic in (Burns) 371, 374
Menstruation, disordered (Blair, Leute, Moses, Rosicki) 371, 373
— suppression of (Eagon, Taylor) . 371, 373
Mental condition, medico-legal reports on (Cazenave, Dragonet, &c.) . 458
— disorders (Robinson) 203, 204
MERCER, medical notes from the Continent 268
MERCIER, retention of urine 298, 299
Mercury, influence on the secretion of bile (Scott) 253, 257
— in syphilis (Gruber) 140, 162
— *do.* (Lorinser and Reder) 140, 156
— in albuminous urine (Kennedy) 253, 258
— poisoning by (Lassaigne, Maschka, Prince, Roberts) 441, 442
— chloriodide of, in acne rosacea . . 266
MEREI, children's hospital, Manchester 394
MERTENS, Perforation of appendix vermiformis 405
MERTIVIER, bleeding from lingual veins 235, 241
Merycism, abdominal, a symptom of a masked ague (Clemens) 235, 242
MERZ, hemicrania 179, 180
MESSER, foetus with spina bifida, &c. 416, 421
Metaphysical aspects of physiology (Seller) 3
Metritis, chronic, cauterization in (Costilhes) 373, 376
Metrorrhagia (Beau, Decaisne) . . 371, 374
METZLER, spontaneous evolution . 348, 349
MEYER, expiration of carbonic acid 62, 65
— independence of the spinal cord 38
— congenital stricture of pulmonary arteries 415, 418
— dysphagia 235
MEYER (G.), VERNONIS, &c., on traces of sugar in persons dying of different diseases 132
MIALHE, effect of santonine on the vision 52, 55
Miasma, genesis of (Guerdan) . 477, 478
MICHAELIS, larger bloodless operations 275, 275
— scrofula and tuberculosis 141, 176
— syphilization 140, 155
— facial neuralgia 179, 183
Microscope, essays on (Reinicke) . . 3
— construction and application (Harting) 3
— application to clinical medicine (Duben) 3
— influence of, in medicine (Collingwood) 3
Midwifery and diseases of women and children, report on, by Graily Hewitt, M.D. 335-421
— *obstetrical operations* 353
— *employment of chloroform and remedial agents in* 362
— *statistics of* 364
Midwifery, statistics of cases (Dunn, Harrison, Lee, Mason, Rigden, Tilanus) 364
— reports of hospitals (Barnes, Ellis, Elsässer, Grenser, Habit, Martin, Rousset, Schmidt) 364
Milk 78
Milk, volumetric analysing of (Monier) 78, 81
— human, containing excess of fat (Schlossberger) 78, 81
— mother's, conveyance of medicines by, to child (Schauenstein) 393
— cow's, albumen of (Trommer) . 78, 81
MILLARD, tracheotomy in croup . 399
MILLER, encysted tumour of ovary 377, 379
MILROY, human monstrosity . 415, 419
— mountain sites for barracks . 469, 470
MINCHIN, rotatory convulsions . 181, 202

- Mineral waters, chemical analysis (Henry) 477, 477
- MISSOUX, sulphate of copper in croup 221, 230
- Mitral-valve disease (Cockle) . 210, 218
- rupture of cordæ tendineæ of (Feigneaux) 209, 218
- MOELLER, fissure of sternum . 416
- military eye diseases . 325
- MOILIN, pressure of the blood . 26
- MOISSENET, puncture of hydatid cysts of liver . 255, 263
- Mole, hydatid (Fritz, Hamon, Hewitt) 351, 352
- Molecular changes in nerve-substance (Harless) . 35, 45
- MOLESCHOTT, popular treatise on food 69
- Molluscs, lamellibranchiate (Rolleston) 117, 121
- MONIER, on analysing milk . 78, 81
- MONNU, vesico-vaginal fistula . 380, 382
- Monorchidism in man (Godard) . 304, 305
- Monster, twins united at trunk (Marnitz) 349, 350
- anencephalian (West) . 415, 418
- double-headed (Loescher) . 349, 350
- “Peracéphale” (Delacour) . 415, 418
- Monstrosity, human (Milroy) . 415, 419
- MONTEGAZZA, virtues of coca . 269, 272
- MOORE, affections of chest . 398, 400
- reflex paraplegia . 180, 193
- pleuritis and empyema . 221, 230
- diseases of the skin . 264, 265
- *sapo laricis* in cutaneous diseases 264, 265
- MOORHEAD, angina pectoris . 209, 214
- physiology of hearing . 55, 56
- MOOS, saccharine function of liver 82, 86
- MORAUD, congenital cataract . 414
- MOREAU, motor and sensory roots of spinal nerves in fish . 39
- glucogenic function . 82, 85
- icterus neonatorum . 405
- MORGAN, fracture of neck of femur 311, 315
- MORITZ, closure of vagina in delivery 341
- MORRIS, belladonna, protective against scarlet fever . 409
- placenta prævia . 351, 352
- Mortality, statistics of (Guerard, &c.) 465
- comparative, in Australia and England (Beddoes) . 268, 270
- of Paris (Trebuchet) . 465
- MORVAN, bleeding from the ear . 395
- MOSES, disordered menstruation . 371, 373
- MOSLER, passage of substances from the blood into the bile . 83, 88
- convulsive sneezing . 180, 188
- Motion, organs of, diseases (Bouvier) 408
- Mouth, pharynx, and œsophagus, malformations, &c.* . 278
- Müller, Professor (Bischoff and Virchow) 3
- MÜLLER, chemical composition of the brain 83, 91
- accommodation of the eye . 51
- contagious disease of eyelids . 325
- extra-uterine pregnancy . 341
- MÜLLER, development of bone in rachitis 13, 17
- do. . 408, 409
- theory of respiration . 62, 64
- MURCHISON, Windsor epidemic . 140, 171
- continued fevers . 139, 154
- do. . 140, 171
- simultaneous diseases from specific morbid poisons . 140, 166
- typhus from overcrowding . 140, 160
- Murmur in the vessels (Chauveau) 209, 211
- basic systolic (Fox) . 209, 215
- continuous, in the neck (Kolisko) 209, 212
- musical, in cirrhotic liver . 229
- MURNEY, injuries to the head . 311, 316
- MURPHY, Cæsarean section . 355, 360
- MURRAY, exomphalos . 385, 388
- MURRAY (J.) placenta prævia; air-pessary 351, 352
- Muscles, human, text-book (Henle) 20, 23
- growth of (Budge) . 19, 22
- action of electric current on (Althaus) 35, 45
- do. . 138, 144
- power of limiting local action of electricity (Kupffer) . 20, 22
- action of poisons on (Pelikan) . 105
- recovery of, after section in poisoned animals (Hoppe) . 105, 109
- irritability of (Arnold) . 20, 22
- do. inherent . 45
- do. in relation to rigor mortis (Heincke) . 24
- contracted, action of, on the atmosphere (Valentin) . 20, 22
- paralysis of (Creutz) . 51
- ciliary (Levy) . 51, 54
- of the eyeball, paralysis of (Graefe, Schuft) 51
- transversus colli (Luschka) . 20, 23
- sterno-clavicularis (Hyrtl) . 20, 24
- thoracic, action of, in respiration (Arnold) 62, 66
- Muscular system* . 19; 207
- Muscular action, from electrical point of view (Radeliffe) . 19, 21
- exercise (Fechner) . 20, 22
- influence on the constitution (Thouvenin) 20
- movement (Wundt) . 20, 22
- atrophy, syphilitic (Rodet) . 207, 207
- fibres, structure (Budge) . 20
- do. nutrition and decay (Botcher) 20, 24
- do. involuntary, during contraction (Meissner) . 20, 22
- do. striated (Berlin) . 20
- fibrillæ (Bruecke) . 20, 24
- paralysis (Friedberg) . 207, 208
- tissue of the bladder (Ellis) . 19, 21
- MUSCULUS. See *Choulette*.
- Museum of St. Thomas's Hospital (Jones) 3
- MUSHET, angina pectoris . 209, 217

- MUSSET, strangulated inguinal hernia in a woman 288, 290
- Mutilation, on definition of 422, 424
- Mydriasis (Petrinus) 51
- MYRTLE, obstetric cases 348, 350
- Nævi materni, vaccination for removal of (Legendre) 400, 403
- NAMIAS, tuberculosis of uterus 372, 374
- Naphtha, oil of, in tinea favosa (Chapelle) 410
- Napoleon, "attentat" on his life, Jan., 1858 (Tardieu) 425, 428
- Narcotism, voltaic, for local anæsthesia (Richardson, Waller) 110, 111-12
- Nasal fossæ, diphtherous larvæ in (Coquerel) 221, 230
- NASSE, difference in livers of animals fasting or digesting 83, 87
- NAUDEAU, lactation 393
- Nausea (Stich) 58
- Neck, tumours of the* 283
- Necrosis, acute, and pyæmia (Stone) 310, 312
— of lower jaw, from phosphorus (Coote) 311, 316
- Neglect, criminal, murder by (Eulenburg) 425, 428
- NEGRIER, retroversion of pregnant uterus 341, 344
- NELATON, extirpation of tumour in neck 283, 284
— varicocele 304, 305
- NELIGAN, porrigo 410
- Nephritis, parenchymatous (Rosenstein) 254, 260-2
- Nerve-centres, passage of electric currents through (Bonnefin) 36
- Nerve-fibres, origin 40
— structure (Lister) 37, 47
— vitality (Kolliker) 35, 44
— crossing of, in the spinal cord (Bezold, Vulpian) 38, 48
— non-crossing of, high in spinal cord (Brown-Séguard) 38
- Nerve-force, questions of its source and nature 9
- Nerve-sheath, importance of (Harless) 35
- Nerve-substance, molecular changes in (Harless) 35, 45
— influence of oxygen on (Brown-Séguard) 37, 48
- Nerve-affections (Hillairet) 181, 198
- Nerve-disorder (H. Jones) 179, 183
— from syphilis (Gjor) 179, 187
- Nerves, circulation of (Flourens) 39
— reflex movements (Brown-Séguard) 38
— termination (Krause and Luschka) 37, 47
— influence on inflammation (Samuel, Snellen) 124, 128-9
— do. on salivary secretion (Eckard, Czermack) 78, 81
— action of galvanism on (Rousseau) 36, 46
— influence of water in (Birkner) 35, 44
— action of woorara on (Haber) 105
- Nerves, section and degeneration of (Bernard) 39
— recovery, after section in poisoned animals (Hoppe) 105, 109
— of the intestines (Billroth) 37, 46
— supplying the joints (Rudinger) 37, 48
— fifth, painful anæsthesia of (Barwinkel) 180, 193
— do. neuralgia of (Schramm) 181, 202
— do. do. (Oppenheimer) 180, 193
— sixth, paralysis of (Barwinkel) 180, 193
— acoustic, termination of (Schultze) 37, 47
— inferior dental, section of (Paravicini) 179, 187
— facial (Liegois) 39, 50
— superior maxillary, section of (Cornochan) 39
— olfactory (Oehl) 37, 48
— do. 58
— do. anæsthesia of (Franque) 179, 185
— pneumogastric, function of (Asche) 39
— do. experiments on (Heinemann) 39, 50
— do. section of (Van Biervliet) 39
— do. action in vomiting (Bulatowics) 39, 49
— do. action in respiration (Lowinsohn) 39, 49
— do. influence on movements of the intestines (Kupffer) 39, 50
— popliteal, division of, for neuralgia in the leg (Hooker) 180, 195
— spinal, recurrent sensibility in motor roots of (Flourens) 39
— do. on distinguishing motor from sensory roots, in fish (Moreau) 39
— splanchnic (Brown-Séguard) 39, 50
— do. influence on movements of the intestines (Kupffer) 39, 50
— splenic plexus (Jaschkowitz) 39, 50
— sympathetic, spinal centres of (Budge) 39
— do. human cervical (Wagner) 39, 50
— motor, action of electric current on (Althaus) 35, 45
— do. 138, 144
— do. action of galvanism on (Halle) 36
— do. of face, paralysis of (Dumenil) 181, 195
— do. lachrymal (Curie) 37
- Nervous diseases, physiology of (Lussana) 38, 49
- Nervous system* 35; 178
- Nervous system, physiology and pathology of (Bernard) 35, 42
— do. (Brown-Séguard) 35, 40
— comparative anatomy of (Gratiolet) 36, 46
— of different animals (Jacobowitsch) 37
— structure at the periphery (Coghill) 35, 43
— lesions of, producing diabetes (Pavy) 82, 84

- Nervous system, effect of cold water on (Preiss) 35, 45
- NEUBAUER, origin of oxalic acid 95, 101
- and VOGEL, analysis of the urine 94, 100
- NEUDORFER, suicide 451, 451
- Neuralgia, electricity in (Althaus) 138, 144
- of brachial plexus (Sloane) 180, 195
- facial (Burdach, Frank, Michel) 179, 183-5-6
- of the fifth pair (Oppenheimer) 180, 193
- do. (Schramm) 181, 202
- of lingual nerve 194
- of uterus (Becquerel) 372
- in the leg, division of popliteal nerve for (Hooker) 180, 195
- Neurology of organs of special sense (Coghill) 35, 43
- Neuroma, the true (Virchow) 124, 126
- Neuro-muscular sensibility (Zantedeschi) 59
- Neurotomy in neuralgia (Michel) 179, 183
- in facial neuralgia (Frank) 179, 186
- NEUVILLE, medical history of woman 365
- NEVINS, medicines in vapour 269, 271
- vesico-vaginal fistula 381, 382
- NEWHAM, a fever village 139, 146
- Nicotia, poisoning by (Melsens, Taylor) 442, 443
- NIEMANN, ergot of rye 473, 474
- NIEMAYER, treatment of pneumonia 220, 229
- Nipples, sore, during lactation (Anselmier) 383, 384
- Nitrate of silver, injection of solution into bronchi (Griesinger) 219, 224
- NITTINGER, season of vaccination 480, 480
- NOEGGERATH, external turning 354, 358
- uterine injections 372, 375
- NOIZET, staphyloma posterius 326, 328-9
- NONAT, hysteria and retention of urine 372
- peri-uterine hæmatocele 377
- Nose, polypi of (Jobert) 278, 280
- NOTHLING, punctured wound of the neck 427, 429
- NOURSE, prolapsus uteri; pessary 368, 370
- NUNN, idiosyncrasies 268
- NUSSBAUM, bone-abscess in lower jaw 311, 316
- NUSSER, trepanning in frontal presentation 356, 362
- medicine in relation to administration of justice 422, 423
- Nutrition of bone (Budge) 13, 16
- of animals, influence of light on (Dobell) 117, 120
- Nymphæ, hypertrophy of (Breslau) 381, 382
- Objects, apparent size of (Lubimoff) 52, 54
- Obstruction, stercoraceous (Theile) 286
- O'DALY, larch bark in pulmonary hæmorrhage 221, 234
- ODLING (William) *report on legal medicine, public hygiene, and dietetics* 422-483
- ODLING (W.) Marsh's process for detecting arsenic 434, 435
- O'DONOVAN, infantile syphilis 413, 413
- Edema glottidis, scarification of (Tudor) 221, 231
- do. 281, 282
- OEHL, on the olfactory nerve 37, 48
- do. 58
- ELTINGER, potass. iodid. internally 148
- Esophagus, medullary cancer of (Firth) 236, 249
- contraction near cardiac orifice (Gradenwitz) 236, 244
- hæmatemesis from varices in (Le Diberder) 235, 244
- digestive solution of (Canton) 237, 250
- stricture of (Batty) 236, 250
- do. from swallowing corrosive fluid (Addison) 279, 280
- ligature of (Orfila, Trousseau) 69, 71
- OGLE, diphæmetric compass 58, 59
- paralysis and hyperæsthesia of one side 181, 202
- poisoning by sulphate of zinc 450, 450
- and MEADOWS, clubbing of finger-ends in thoracic disease 208, 210
- OIDTMANN, inorganic constituents of liver, spleen, &c. 83, 89-91
- OKE, stomach and its ailments 235, 240
- OLDHAM, retroflexion of uterus 341, 345
- OLLIER, artificial production of bone 13, 15
- OLLIVIER, pessaries in deviations of uterus 367, 370
- Omentum, resection of, in operations for hernia (Paupert). 288, 289
- Operations, larger bloodless (Michaelis) 275, 275
- OPHTHALMIA, contagious (Gyyomar) 325
- Egyptian (Pauli) 325
- do. (Sommer) 325
- military (Costetti) 326
- do. (Warlomont) 325
- do. (Laveran) 478, 479
- do. in Danish army in 1851 (Bendz, Moeller) 325
- granular, contagious (Van Roye) 325
- do. unguentumsulphuris in (W. Jones) 326, 328
- purulent (Conde) 326
- do. of infants, caused by light (Ballard) 395, 397
- do. spontaneous (Cordier) 326
- gonorrhœal (Wilde) 326
- do. stimulant treatment (Hancock) 326, 327
- Ophthalmoscope (Reute) 51
- practical application (Hansen) 51
- Opisthotonos in hydrocephalic children (Kohler) 394, 396
- Opium in puerperal diseases (Bonfils) 387
- poisoning by 443, 444
- OPPENHEIMER, neuralgia of the fifth pair 180, 193

- OPPOLZER, Bright's disease . . . 254
 — contractions of larynx . . . 220, 224
 — ætiology of ascites . . . 236, 246
 ORFILA, ligature of the œsophagus. 69
 — poisoning by arsenious acid . . . 434, 435
 Organic form, laws of (Spencer) . . . 117, 119
Organs, particular, of the body . . . 82, 85
 Organs of the senses (Rau) . . . 51
 — auditory and visual (Sturm) . . . 51
 ORR, recovery from Bright's disease 254
Orthopædic surgery . . . 331
 Os alveoli, caries of (Stillman) . . . 312, 319
 Os uteri of primiparæ (Huter) . . . 337, 338
 — incision of (Godefroy) . . . 353, 356
 — ulceration of (M'Ruer) . . . 373, 376
Osseous system . . . 13
 Ossiculum tegmenti tympani (Wenzel) . . . 13, 17
 Ossification of cartilage (Aeby) . . . 4
 — do. . . 14, 19
 — in exostosis, &c. . . 126-7
 Osteology, human (Ward) . . . 1, 5
 Otitis, inflammation of cerebral sinuses in (Lebert) . . . 395
 Ova, yearly ripening of, in woman (Mattei) . . . 365, 365
 — emigration of (Kussmaul) . . . 118, 123
 — migration of, cause of tubal pregnancy (Kussmaul) . . . 340, 343
 — and pseudova of insects (Lubbock) . . . 117, 122
 Ovarian cysts and tumours (Black, Brown, Clay, Eulenberg, Hewitt, Holt, Lumpe, Miller, Patterson, Preuss, Terry, Wells) . . . 376-7, 378-9
Ovaries, diseases of . . . 376
 Ovariectomy (Brown, Childs, Crouch, Hergott, Holt, Miller, Simon, Terry, Wells) . . . 376-7, 378-9
 OVERTON, croton oil in puerperal convulsions . . . 386, 389
 Oviductal system in lamellibranchiate molluscs (Rolleston) . . . 117, 121
 Ovum (Radlkofer) . . . 4
 OWEN, fossil mammals of Australia, marsupial carnivore . . . 13, 15
 — vertebræ of pterosauria . . . 13, 14
 OWSJANNIKOW, critique on Jacobowitsch's paper . . . 37, 47
 Oxalate of lime, dumb-bell crystals of (Beale) . . . 94, 98
 Oxalic acid, origin of (Neubauer) . . . 95, 101
 — poisoning by (Rul-Ogez, Webb) . . . 444, 444
 Oxide of copper in healthy urine, on reducing (Bruecke) . . . 95, 102
 Oxide, xanthic, on presence of (Kletzinsky) . . . 94, 101
 — do. normal in the body (Scherer) . . . 84, 93
 — do. transformation of guanin into (Strecker) . . . 84, 93
 Oxygen a therapeutical agent (Birch) . . . 269, 272
 — influence on nerve-substance (Brown-Séquard) . . . 37, 48
 Oxygen, introduction into cellular tissue (Leconte) . . . 77, 79
 OZANAM, carbonic acid gas as an anæsthetic . . . 111, 113
 Ozone, discovery of its existence in the body . . . 8-9
 — relation to blood (His) . . . 27
 — influence of red blood-corpuscles on (Schönbein) . . . 27, 33
 Ozonized oils, medical administration of (Thompson) . . . 268, 269
 PAASCH, pædiatria . . . 409
 PACKARD, affections of spine . . . 180, 189
 PAGENSTECHER, rupture of uterus in osteomalachial pelvis . . . 342, 347
 — delivery in pelvic deformity . . . 355, 359
 PAGET, eclampsia . . . 385
 — imperforate hymen . . . 381, 383
 — retention of urine, &c. . . 298, 299
 Pain as a sign of disease of the stomach (Habershon) . . . 237, 251
 Palate, perforation and clefts of (Baizeau) . . . 278, 279
 — soft, movements during speaking and swallowing (Schuh) . . . 69, 71
 — do. laceration; sutures (Ward) . . . 278, 279
 Palsies, alternating, from affections of the pons (Gubler) . . . 181, 195
 — wasting, simulated by neuralgia of brachial plexus (Sloane) . . . 180, 195
 — See *Paralysis*.
 PANAS, abnormal aorta . . . 27, 33
 Pancreas, function of (Funke) . . . 69, 71
 — imperfectly known function of (Corvisart) . . . 68, 70
 — digestion of protein substances by (Brinton) . . . 69, 70
 — action of juice of, on albumen (Corvisart, Keferstein) . . . 68-9, 70
 — suppuration of (Riboli) . . . 254, 260
 — extirpation of (Berard) . . . 69, 71
 — of the ox, guanin in (Scherer) . . . 84, 93
 Pannus, blennorrhœal inoculation as cure for (Paoli) . . . 326, 327
 — do. (Maracacci) . . . 326, 327
 PANUM, binocular vision . . . 55
 — putrid infection . . . 140, 155
 PAOLI, blennorrhœal inoculation in pannus . . . 326, 327
 Papillæ, tactile (Gerlach) . . . 37, 47
 — of the tongue (Beau) . . . 58
 PAPPENHEIM, sanitary police . . . 465
Paracentesis and injuries of the bladder . . . 298
 Paracentesis, recovery after, in ascites (Banks) . . . 235, 240
 Paralysis, general (Austin) . . . 203
 — electricity in (Althaus) . . . 138, 144
 — acute ascending (Landry) . . . 181, 198
 — as sequela of diphtheria (Eade) . . . 140, 164
 — of children (Vogt) . . . 394, 395
 — partial (Durrant) . . . 181, 199
 — cerebral, induced (Ogle) . . . 181, 202
 — facial (Ulrich) . . . 181, 197

- Paralysis of motor nerves of face (Dumenil) 181, 195
 — of the sixth nerve (Barwinkel) . 180, 193
 — of muscles (Creutz) . 51
 — do. (Friedberg) . 207-208
 — do. of the eyeball (Graefe, Schuff) 51
 — of tongue, cured by electricity (Posner) 220, 225
 — and hyperæsthesia of one side (Ogle) 181, 202
 — agitans, removed by galvanic current (Reynolds) . 181, 199
 Paraplegia in relation to renal diseases (Hinds) 253, 258
 — reflex, strychnia in (Moore) . 180, 193
 — reflex and direct forms . 41
Parasites . 113
 Parasites of human body (Küchenmeister) 114
 — in the brain (Davaine) . 38
 — vegetable, of the skin (Hogg) . 113, 116
 — do. in hard structures of animals (Kölliker) . 113, 115
 Parasitic diseases (Lowe) . 264
 — nature of diphtheria (Harley, Laycock) 114, 117
 — fungi (Lowe) . 114, 116
 — do. of human surface (Fox) . 114, 116
 PARAVICINI, section of dental nerve 179, 187
 — atheromatous cyst of labia . 381
 PARCHAPPE, pathology of fibrine in blood 125, 132
 Parenchymatous inflammation (Virchow) 124, 130
 Parent, influence of male and female, on progeny (Thomson) . 117, 118
 — table, showing the chief influence of the male . 118
 PARENT-DUCHATELET, prostitution in Paris 482, 482
 Parietal angle, instrument for measuring (Quatrefages) . 13
 PARKER (L.) syphilis of uterus . 372, 374
 PARKES, albuminuria as symptom of kidney disease . 253, 258
 — blow on the head, followed by diplopia 178, 182
 PARKIN, causation of disease . 138, 141
 Parotid gland, acute inflammation of (Virchow) . 235, 241
 Parthogenesis in plants and animals (Lankester) . 118
Parturition . 337
 Parturition, phenomena (Schubert) 338
 — arm presentation (Evershed, Madge) 348, 349
 — cross presentations (Doig) . 348
 — pelvic presentation (Lizé) . 348
 — spurious pains (Simpson) . 338, 340
 — difficult, from size of foetus (Jacquemier) 349, 350
 — emphysema in (Bishop) . 338, 340
 — retrogression of (Charien) . 338, 339
 Parturition, chloroform in (Kidd, Levy) 362, 362-3
 — ergot in (Deville) . 362, 363
Parturition, pathology of . 340
 Parturition, laceration of perinæum in (Butignot, Schultze) . 338, 340
 — laceration of sacro-iliac synchondrosis in (Scanzoni) . 338, 340
 — induction of premature, by catgut (Braun) 353, 356
 — do., by sponge-tent (Reymann) . 354, 356
 — do., by Cohen's method (Hausmann) 354, 356
 — do., v. craniotomy (Guerdan) 354, 356
 — do., by warm injections (Maunoury) 354, 357
 — do. (Birnbaum, Coesfeld, Crede, Finizio, Germann, Giordano, Godefroy, Groeningen, Hanemann, Hecker, Lumpe, Mayer, Riedel, Ross, Stolz, Trouncer) . 354, 357
 PATERSON, suicidal poisoning with arsenic 451
 Pathological experiments (Picard) . 2
Pathology, report on, by Handfield Jones, M.B. . 124-272
 — *general, and symptomatology* . 124
 Pathology, contributions to (Lister) 2, 6
 — relation of anatomy to (Knox) . 1
 — contributions to experimental (Beckmann) 125
 — cellular (Virchow) . 3, 12
 PATRON, lactation . 393
 — prolapsus of mucous membrane of urethra 293, 293
 PATTERSON, aneurism of left carotid artery 306, 307
 — encysted tumour of ovary . 377
 PAULI, Egyptian ophthalmia . 325
 PAUPERT, glycerine in vulvar hyperæsthesia 381, 383
 — resection of omentum in hernia . 288, 289
 PAVY, diabetes . 255
 — lesions of nervous system producing diabetes . 82, 84
 — and WILKS, anæmia lymphatica 254, 261
 PEACOCK, antagonism of consumption and ague . 220, 227
 — malarious affections . 141, 173
 — tape-worm from use of raw meat 113, 114
 PEAN, tumour of cornea . 326, 328
 PECHOLIER, puerperal fever . 386
 PELIKAN, anthiar and anthiarine poisons 105, 109
 — physics of gunshot wounds . 425, 428
 — poisoning by bichromate of potash 439, 439
 — rigor mortis . 427, 430
 — and KÖLLIKER, action of certain poisons on the muscles . 105, 108
 — See *Kölliker*.
 — and SAVIELIEFF, introduction of substances into the body by galvanism 111, 113

- PELLETIER's method, in invagination of colon (Cabaret)** 286, 287
PELLISCHEK, suicide by sulphuric acid 451
PELLIZZARI, puerperal fever 127
Pelvic members in man and in animals (Martins) 13, 17
Pelvimeter, new (Raimbert) 341
Pelvis, female (Duncan) 365, 366
— development of (Duncan) 117, 121
— cases of deformed (Meissner) 341, 344
— rare deformity (Schwegel) 341, 344
— obliquely distorted (Kros). 341, 343
PEMBERTON, popliteal aneurism; flexion, and compression 307, 308
Pemphigus chronicus (Schönheit) 264, 265
Penis, amputation for epithelial cancer 305, 306
Pentastoma, some kinds of (Van Beneden) 114
— *tænioides* (Leuckart) 114
Pepsin, use of 404
— (Leared) 236, 246
Peptone, endosmotic equivalent of (Funke) 74, 76
Perforation of vermiform appendix (Bamberger) 235, 243
Pericardial exudation (Flogel) 210
Pericarditis (Gairdner) 208, 210
— (Markham) 209, 215-17
— *ætiology of* (Duchek) 209
Pericardium, ligaments of (Luschka) 26
Perinæum, laceration of, during delivery (Butignot, Schultze) 338, 340
— ruptured (Bagot, Breslau, Kuchler) 381, 382
Periosteum, transplantation of (Ollier) 13, 15
Periostitis, acute (Curling) 310, 312
Peristaltic movements of digestive canal (Calliburces) 20, 22
Peritoneum, introduction of air, oxygen, &c., into (Leconte) 77, 79
Peritonitis, acute idiopathic, treated by quinine (Beau) 236, 247
— puerperal (Tilt, West) 377, 379
— do., from inflammation of Fallopian tubes (Martin). 387, 392
Pernicious fever in children (Guet) 139, 146
PERRIN, scrofula 413
— scrotal hernia, second sac 289, 292
PERRONE, special anatomy 2
Perspiration, cutaneous (Funke) 77, 78
— table of amounts of, during exercise 79
PESCH, eclampsia puerperalis 385, 389
Pessaries (Ollivier, Schultze) 367, 369-70
— Zwanke's, in prolapsus (Mayer). 367, 369
— patent mushroom (Bourjeaud) 367
PETRINUS, mydriasis 51
PFLUGER, effects of a constant electrical current 35
— tetanus induced by the constant current 36, 46
— influence of vagi on heart's action 27, 31
Pharyngitis, inhalation of carbonic acid in (Willemin) 220, 228
Pharynx, polypi of (Roeser) 278, 280
PHILPEAUX, extirpation of the supra-renal capsules 83, 91
PHILSON, chronic hydrocephalus 394, 396
Phlebitis, uterine, pregnancy during (Cooke) 387
Phlebothrombosis after delivery (Baart) 385, 388
Phosphates (Krabbe) 95
— in food and in urine (Sick) 95, 102
— earthy, in food of young animals (Lehmann) 69
— table of do. 73
Phosphoric acid, excretion of (Hammond) 95, 102
Phosphorous disease 470
Phosphorus, poisoning by (Birkner, Casper, Lassaigne, &c.) 444, 445
— fumes, necrosis of jaw from (Coote) 311, 316
Phthisis (Cormak) 400
— causes of (Turnbull) 220
— prognosis in (Pollock) 221, 232
— rarity of, on the sea coast (Verhaeghe) 219, 222
— chloride of sodium in (Cotton) 220, 226
— iodide of potassium in (Cotton) 221, 234
— oxide of zinc, in sweats of (Jackson) 253, 255
— cancerous (Dupré) 219, 223
— and ague, antagonism of (Green) 220, 225
— do. (Peacock) 220, 227
Physiological experiments (Picard) 2
— Institute of Breslau (Reichert) 2
— do. at Heidelberg (Arnold) 2
Physiology, text-book (Funke, Schiff) 2, 10
— do. (Schiff) 35, 44
— cyclopædia of (Todd) 1, 5
— contributions to (Eckhard) 1, 5
— do. (Lister) 2, 6
— relation of anatomy to (Knox) 1
— metaphysical aspects of (Seller) 3
— human (Dalton) 1, 4
— do. (Longet) 2, 9
— do. text-book (Ludwig) 2, 8
— comparative (Auzeux) 2
— do. (M. Edwards) 2, 10
— electro (Linati, Matteucci) 36
Pica of children (Corrigan) 236, 248
PICARD, physiological and pathological experiments 2
PICARDAT, anomalies of urethra 415, 419
PICKFORD, asphyxia, Marshall Hall's method 397, 400
Picrotoxine, poisoning by (Gunkel) 445, 445
PIDOUX, puerperal fever 386, 391
PIERSON, Fallopian pregnancy 340, 343
Pigment-cells of the frog's skin 7
PINDELL, strychnine poisoning prevented by fat 446, 446
PINGAULT, retroversion of gravid uterus 341, 344

- PIORRY, influence of deep respiration on diseases of heart, &c. . . 125, 136
 PIPPINSKOLD, researches on the circulation . . . 25
 Pirogoff's operation (Watson) . . 276, 278
 — do. (Curling) . . . 276, 278
 PIRRIE, sun-stroke . . . 179, 184
 PITHA, tumours in the neck . . 283, 283
 — galvano-caustic treatment of varicocele . . 304, 305
 'Pitha's Clinie,' cases in (Gunter) . 320, 321
Placenta and fetal appendages, abnormal conditions . . . 351
 — adhesions of (Houel) . . . 414, 418
 — do. cold injections into umbilical veins in . . . 351
 Placenta prævia (Barnes, Donkin, Foucart, Glisczynski, Morris, Murray, Rainy, Spiegelberg, Stephens) . . 351, 351-2
 PLAGGE, Millar's asthma . . . 397, 400
 — diagnosis of uterine hæmorrhage . 342
 — legal responsibility . . . 457, 460
 PLATH, letters to young mothers . 392, 394
 PLEISCHL, syphilization . . . 140, 155
 — and FOLWARCZNY, acute atrophy of the liver . . . 254, 259
 Pleurisy of right side (Keyser) . . 220, 225
 — and embolia of pulmonary artery (Keyser) . 220, 229
 Pleuritic effusion, resorption of (Skoda) . 221, 231
 — do., cure by thoracentesis, &c. (Gairdner) . 221, 233
 — exudation (Flogel) . . . 210
 Pleuritis, terminating by vicarious secretion (Moore) . . . 221, 230
 PLUVIEZ, incontinence of urine in boys . 407, 407
 Pneumonia, treatment (Niemayer) . 220, 229
 — digitalis in (Schneider) . . . 139, 147
 — of infants (Bennet, Foville) . . 399
 — asthenic (Russell) . . . 220, 227
 POGGIALE, origin of sugar in the body . . 82, 86
 — report on Sanson's paper on sugar in the body . . . 82, 86
 POISEVILLE and LEFORT, glucose in the body . . . 82, 85
 Poison of adder (Weston) . . . 104, 105
 — do. . . . 448, 448
Poisons and poisoning . . . 432
 — *special (in alphabetical order)* . . 433
 — *physiological action of* . . . 104
 Poisons, action on the muscles (Pelikan) . 105, 108
 — animal, destruction by disinfectants (Lehwess) . . . 269, 270
 Poisoning, treatment of . . . 41
 — cold affusion in (Jackson) . . 269
 — alleged, case of Rogers for murder of P. Wright . . . 432
 — by arsenic in cigars . . . 432
 — by water from leaden cistern (Chavasse) . 268
 Poisoning, apparent . . . 432
 Polarization of electrolytes (Dubois-Reymond) . 36
 POLLAK, contagious exanthemata in Teheran . 409
 POLLITZER, physical education of children . 393, 394
 — diseases of childhood . . . 393
 POLLOCK, granulated blood-discs . . 28, 34
 — vesico-vaginal fistula . . . 380
 — prognosis in phthisis . . . 221, 232
 Polypi of nose and fauces (Jobert) . 278, 280
 — of pharynx, removed by twisting (Roeser) . 278, 280
 — of uterus (Elkington, Hardy, Maier, Wagner) . . . 372, 375
 — do. diagnosis (Cazenave) . 368
 — fibrous, of uterus (Breslau) . . 373, 375
 Pons varolii, comparative anatomy of (Rolleston) . . . 37, 47
 PONTIER, mental state of Marie Pons . 458
 Poor, lupus erythematoses . . . 264
 Population, in Franconia, Baden, Mecklenburgh, Bavaria, &c. . . 465
 PORCHER, absence of urea and uric acid in urine of yellow fever . . . 95, 103
 Porrigio (Neligan) . . . 410
 — decalvans (Barensprung) . . 264
 PORTER, division of left renal artery . 306, 307
 — chronic ulceration of larynx . . 281, 282
 POSNER, paralysis of tongue cured by electricity . . . 220, 225
 — rheumatic head affection . . 181, 197
 Potash, bichromate of, as a poison (Pelikan) . 439
 Potassium, iodide of, in diseases of brain (Coldstream) . . . 181, 198
 — do. in hydrocephalus (Carson, Coldstream) . . . 395, 397
 — do. in phthisis (Cotton) . 221, 234
 Practice, effect of, in perfecting the sense of touch (Fechner, Volkmann) . . 59, 61
Pregnancy and parturition . . . 337
 — *pathology of* . . . 340
 — *diseases of* . . . 384
 Pregnancy, diagnosis of (Hecker) . 337, 338
 — do. (Mattei) . . . 338
 — kiestine of (Hicks) . . . 94, 98
 — local bloodletting in (Silbert) . 362, 363
 — extra uterine, (Cahen, Chevillon, Müller, Van Geuns, Waller) . . 340-1, 343
 — do. perforation of vagina in (Rizzo) . 340
 — tubal (Hecker) . . . 118, 123
 — do. (Hancox, Harley, Pierson) . 340, 343
 — do. from migration of ova (Kussmaul) . 340, 343
Pregnancy and parturition, illegitimate . 452
 PREISS, effect of cold water on the nervous system . . . 35, 45
 Preparations in St. Thomas's Hospital Museum (Jones) . . . 3

- PREUSS, radical cure of ovarian dropsy 376, 378
- PRICE, excision of knee-joint . 311, 318
— instrument for examining the base of the tongue and epiglottis . 62
- PRIESTLEY, development of gravid uterus 335, 336
— fibrous tumour of uterus in labour 355, 359
- PRINCE, poisoning by red precipitate 441, 442
- Printers, diseases of (Holzbeeck) . 471
- PROSPER, puerperal fever . 387
— disease of workmen in green papers 471
- Prostate, engorgement of (Mercier) 298, 299
— enlarged (Tatum) . 299, 299
- Prostitution* . 482
- Prostitution, history of (Sanger) . 482
— in Paris (Parent-Duchatelet) . 482
- Protein substances, digestion of by the pancreas (Brinton) . 69, 70
- Prurigo (Barensprung) . 265, 268
- Pruritus pudendi muliebris (Rigby) 381, 383
- Prussic acid, poisoning by (Brame, &c.) 445, 445-6
- Psychiatric communications from Russian hospitals . 203, 205
- Psychology, forensic (Wilbrand, &c.) 457-8
- Pterosauria, vertebral character (Owen) 13, 14
- PUDON, wet applications in croup . 398
- PUECH, hæmorrhage of Fallopian tubes 377, 379
- Puerperal convulsions, hysterical (Kidd) 178, 182
- Puerperal diseases (Virchow) . 387, 392
— the blood in (Schulten) . 387, 392
- Puerperal fever (Auber, Behier, Chavanne, Dor, Dove, Legroux, Mascari, Mattei, Pecholier, Pidoux, Prosper, Schnepf, Surmay, Thibaut) . 386-7, 391
— discussion at Academy of Medicine 386, 390
- Pulse, normal rapidity of (Guertin) 26
— double, hydraulic interpretation (Marey) 26
— radial, stoppage of (Verneuil) . 26, 29
- Pupil, voluntary contraction and dilatation (Wright) . 50, 53
- PUREFOY, hæmorrhage in labour . 342, 348
- Purpura, yielding to gallic acid and mercury (Whalley) . 210, 218
— acute . 266
— hæmorrhagica (Hardy) . 409
— do. treated by tincture of larch bark (Hardy) . 139, 144
- Pus, blue (Delore) . 125, 133
- Putrid infection (Panum) . 140, 155
- QUACKENBUSH, inversion of uterus 368, 371
- QUATREFAGES, instrument for measuring the parietal angle . 13
- Quinine in acute idiopathic peritonitis (Beau) 236, 247
- QUINLAN, écraseur in anal fistula . 275, 275
- QUINLAN, radical cure of hydrocele 304, 306
— diseases of upper jaw . 311, 317
- Rabies (Thamhayn) . 179, 187
- Rachitis (Bouchut, Goutay, Huschke, Wedl) 408
— development of bone in (Mueller) 408, 409
- RADCLIFFE, muscular action from an electrical point of view . 19, 21
- Radius and ulna, fracture of, treatment by drilling and wiring (Sanborn) . 311, 315
- RADLKOFE, the ovum . 4
- RAGSKY, blood in hydrophobia . 441
- RAIMBERT, pelvimeter . 341
- RAINEY, formation of shells, of bone, &c. 14, 18
— structure of the dental tissues . 14
- RAINY, placenta prævia . 351, 352
- RAMEAUX, laws which regulate the capacity of the lungs . 67
- RAMIS and BRESLAU, double malformation 349, 350
- RAMSBOTHAM, dropsy of amnion, twins 351, 352
— prolapsus of bladder in labour . 341, 344
— puerperal convulsions . 385, 389
— long forceps . 355, 359
- RAMSKILL, local treatment of diphtheria 139, 153
- RANKING, on diphtheria . 151
— ulceration of the duodenum . 236, 248
- RANSOME, diphtheria; paralysis; recovery 141, 175
- RANZI, determination of blood, &c. 124, 130
- Rape, evidence of, on infants [Greenwood's Case] (Kesteven, Wilde) . 453, 454
- RATTRAY, acute dysentery of China 235, 240
- RAU, organs of sense, especially the eye 51
- RAUCHFUSS, softening of lungs in infants 398, 401
- Ravishing (Hauska) . 452, 453
- RAVOTH, strangulated hernia . 288, 290
- Ray fish, electrical organ of (Eckhard) 36
- RECKLINGHAUSEN, earthy constituents of young bones . 13, 16
— echinococcus fluid . 125, 133
- RECLAM, lacteal and lymphatic circulation 74, 76
- Rectum, longitudinal fibres of (Beraud) 20, 23
— stricture (Todd) . 286, 288
— contraction of, from syphilis (Bovero) 237, 250
- REDER. See *Lorinser*.
- REDTENBACHER, the hæmadynamometer 26, 29
- REED, revaccination in army . 139, 147
- Reflex action, who discovered (Jeiteler) 38, 49
— movements (Brown-Séguard) . 38
- REGNAULD, electro-physiological experiments 35
- REICH, etiology and hygiene . 461, 461
- REICHERT, physiological studies . 2

- REID, cases of aneurism . . . 209, 216
 — chlorosis, anæmic murmurs at apex of heart . . . 209, 211
 Reid's (W.) trial for abortion (Duncan) . . . 455, 456
 REINER, separation of two adherent fetuses . . . 414, 416
 REINICKE, microscope . . . 3
 Relapses in diseases running a typical course (Wunderlich) . . . 126, 138
 REMAK, peripheral ganglia in the alimentary canal . . . 37, 46
 — dividing of blood-corpuscles in the embryo . . . 4
 REMILLY, revaccination . . . 480, 481
 RENZI, physiology of the cerebellum . . . 38, 49
 Resection, subperiosteal pubic (Cristoforis) . . . 356, 362
 — See *Excision*.
Respiration . . . 62
 Respiration, theory of (Muller) . . . 62, 64
 — phenomena of (E. Smith) . . . 62, 63
 — action of pneumogastric in (Lowinsohn) . . . 39, 49
 — do. of thoracic muscles in (Arnold) . . . 62, 66
 — do. of food on (E. Smith) . . . 62, 65
 — deep, influence on diseases of heart, &c. (Piorry) . . . 125, 136
 — jerking (Bourgade) . . . 219, 224
 — premature, of fœtus (Schwartz) . . . 335, 336
 — artificial, in poisoning with woorara (Vulpian) . . . 105
Respiration, organs of, diseases of, in children . . . 397
Respiratory system . . . 219
 Responsibility, legal, question of (Boecker, Mair, Schweber, &c.) . . . 458, 460
 Resuscitation of dried and apparently dead animals (Cohn) . . . 118
 RESTIN, extrophia of bladder . . . 416
 Retina, persistence of impressions on (Mellens) . . . 51, 54
 REUTE, new ophthalmoscope . . . 51
 REYBAUD, condition of workpeople in silk . . . 472
 REYMANN, obstetric cases . . . 341
 — induction of labour by sponge-tent . . . 354, 356
 REYNOLDS, facts and laws of life . . . 2
 — paralysis agitans removed by galvanic current . . . 181, 199
 Rheumatic head affection (Posner) . . . 181, 197
 — fever (Whitley) . . . 141, 174
 Rheumatism, acute, treatment by quinine intoxication (Beau) . . . 141, 174
 — do. by opium (Sibson) . . . 141, 175
 — Faradization in (Briquet) . . . 179, 183
 — cerebral (Forget) . . . 179, 186
 — do. (Trousseau) . . . 181, 201
 Rhonchus, infantile bronchial (Semanas) . . . 399
 Rib-cartilage, histology of (Freund) . . . 14, 19
 Ribs, cervical (Luschka) . . . 13
 RIBOLI, suppuration of pancreas . . . 254, 260
 RICCARD, tracheotomy in epilepsy . . . 179, 185
 RICHARD, cephalotripsy . . . 356
 RICHARDSON, voltaic narcotism for local anæsthesia in operations . . . 110-11, 111
 — do. experiments on by Waller . . . 110-11
 RICHTER, feromedical relations of mania . . . 458
 RICORD, chancre, kinds and stages of . . . 321, 322
 RICORDEAU, choleroïd enteritis . . . 404
 RIEDEL, &c., artificial premature labour . . . 354, 357
 RIECKE, value of vaccination . . . 480, 480
 RIGBY, cranial blood-swelling . . . 400, 403
 — pruritus pudendi . . . 381, 383
 RIGDEN, diphtheria at Canterbury . . . 139, 154
 — cases in midwifery practice . . . 364
Rigor mortis . . . 24
 Rigor mortis, definition of (Pelikan) . . . 427, 430
 — (Brown-Séguard, Fischer, Kuhne) . . . 24, 25
 — death of the limbs in (Kussmaul) . . . 24, 25
 — relation of irritability of muscles to (Heincke) . . . 24
 RINGER, connection of heat of body with excreted urea, &c., in ague . . . 94, 99
 — do. . . . 141
 RIZZO, perforation of vagina by arm of fœtus . . . 340
 ROBERT, syphilitic right hemiplegia . . . 180, 193
 ROBERTS, vesical calculus formed on slate pencil . . . 295, 297
 — poisoning by corrosive sublimate . . . 442, 442
 ROBERTSON. See *Rolleston*.
 ROBIN, bronchitis, its independence of pneumonia . . . 221, 233
 — production of walls of cysts round pus . . . 125, 131
 — spina bifida . . . 416
 — menstrual and other blood-stains . . . 427, 431
 — stain containing human adipose tissue . . . 428, 431
 — comparison of hairs found on locality of a murder with those of victim . . . 427
 ROBINSON, aneurism . . . 209, 216
 — mental disorders . . . 203, 204
 RODET, muscular atrophy, of syphilitic origin . . . 207, 207
 ROESER, symptomatic dropsy of morbus Brightii . . . 253, 259
 — polypus of the pharynx . . . 278, 280
 ROGERS, obliteration of spermatic passages . . . 304, 305
 ROKITANSKY, atresia of uterus and vagina . . . 415, 419
 — See *Virchow*.
 ROLLESTON, comparative anatomy of the pons varolii . . . 37, 47
 — and ROBERTSON, aquiferous and oviductal systems in the lamelli-branchiate molluscs . . . 117, 121
 RONGET, erectile organs of woman, &c. . . . 365, 365

- ROSE (Cooper) poisoning by arsenite of copper 434, 436
- ROSENSTEIN, parenchymatous nephritis 254, 260
- ROSENTHAL, effects of different batteries 36, 46
- ROSICKI, menstrual deviation. 371, 373
- ROSS, cancrum oris 404
- premature labour 354, 358
- rupture of cervix uteri 342, 347
- ROSTAN, typhoid fever 139, 146
- ROTH, diseases of brain from blows of the hand on the temples 426, 428
- fatal consequences of a box on the ear 426, 428
- ROUSSEAU, LESURE, and MARTIN-MAGRON, action of galvanism on nerves 36, 46
- ROUSSET, potass. iodid. for arresting mammary secretion 148
- obstetric clinic, Bordeaux 364
- ROUTH, defective assimilation in infants 403, 405
- do. lactation 383, 384
- mortality of infants in foundling institutions 466, 466
- prolapsus uteri 368, 370
- RUDINGER, mechanism of the cardiac valves 26
- nerves supplying the joints 37, 48
- RUHLE, on M. Groux 25, 29
- RUL-OGEZ, poisoning by oxalic acid 444, 444
- Rupture of the heart (Markham) 208, 210
- of the heart and mitral valve (Feigneaux) 209, 218
- of right auricle (Cregeen) 209, 215
- RUSSELL, asthenic pneumonia 220, 227
- Saccharine function of liver (Lehmann, Moos) 82, 85
- SACK, hip-bath 372, 375
- Sacro-iliac diseases (Erichsen) 311, 318
- Saline solutions, absorption and exhalation of gases by (Fernet) 62, 65
- Saliva, temperature of (Ludwig) 78, 81
- Salivary secretion, influence of nerves on (Czermack, Eckard) 78, 81
- SALTER (Hyde) varieties of asthma 219, 222
- asthma 220, 226
- consequences of asthma 221, 232
- treatment of asthma by sedatives 221, 232
- Salts, action of, on living blood-corpuscles (Botkin) 26, 30
- SALZGEBER, suppuration of uterus 349, 350
- SAMSON, oculistic hygiene of infancy 392
- SAMUEL, influence of nerves on inflammation 124, 129
- inflammation from nervous irritation 269
- SANBORN, union of fractured radius and ulna, by wiring 311, 315
- SANGER, history of prostitution 482, 482
- Sanitary police (Pappenheim) 465
- Sanitary institutions, public* 466
- SANSON, origin of sugar in the body 82, 86
- SANSON, origin of sugar in the body, report on. See *Poggiale*.
- SANTESSON, poisoning by sulphate of zinc 450, 450
- Santonine, effects on the vision (Martini, Mialhe) 52, 54
- Sapo-laricis in cutaneous diseases (Moore) 264, 265
- SAPPEY, anatomy of cirrhosis 208, 211
- Sarcina ventriculi, fatal case (Stone) 113, 115
- Sarkin (Strecker) 84, 93
- Sausage poison 475
- SAUTESSON, formation of stone round foreign bodies 295, 298
- SAVIELIEFF. See *Pelikan*.
- SAVORY, shape of transverse wounds of blood-vessels 25, 28
- SAXER, tracheotomy in croup 399
- SCANZONI, death from injection of carbonic acid into uterus 372, 375
- laceration of sacro-iliac synchondrosis during labour 338, 340
- Scarification in œdema glottidis (Tudor) 221, 231
- do. 281, 282
- Scarlet fever (Chavasse, Leubuscher, Trouseau) 409, 411
- power of belladonna against (Morris) 409
- recession of eruption (Jessop) 409, 411
- after parturition (McClintock) 385, 388
- relation to dropsy (Hewitt) 409
- affinities with measles (Kuttner) 410
- sequelæ (Scoutetten) 264, 268
- do. 410, 411
- renal affections after (Anizon, Arnold) 407, 407
- SCHAEFFER, detection of poisoning by arsenic 434, 435
- SCHARLING. See *Eschricht*.
- SCHAUENSTEIN, poisoning with cyanide of potassium 445, 446
- and SPAETH, conveyance of medicines to child by the mother's milk 393
- SCHERER, guanin in the pancreas of the ox 84, 93
- xanthic oxide, normal in the body 84, 93
- table of Oidtmann's analyses of liver and spleen 90
- SCHIELE, abscess in larynx after typhoid fever 220
- SCHIFF, text-book of physiology 2
- do. 35, 44
- function of posterior column of spinal cord 37, 48
- sensibility of the posterior column 37, 48
- electrical stimuli 35
- uric acid 94, 100
- SCHLAGER, medico-forensic psychology 458, 460
- maniacal excitement 203, 204
- SCHLOSSBERGER, bile of the whale. 83, 89

- SCHLOSSBERGER, human milk containing excess of fat . . . 78, 81
- SCHMIDT, obstetric clinic at Wurzburg . . . 364
- strangulated crural hernia . . . 288, 291
- SCHMITT, funic souffle . . . 337, 339
- SCHNEIDER, digitalis in inflammation . . . 139, 147
- simulated epilepsy . . . 451, 452
- psychology in criminal law . . . 457, 460
- questionable state of mind, &c. . . 458
- SCHNEPE, vital capacity of lungs . . . 126, 136
- influence of the circumference and elasticity of the thorax on the vital capacity . . . 67
- relation between the vital capacity and pulmonary affections . . . 67
- SCHNEPP, puerperal fever . . . 387
- SCHNITZLER, acute atrophy of liver . . . 254
- SCHÖNBEIN, influence of red blood-corpuscles on ozone . . . 27, 33
- SCHÖNHEIT and MALMSTEN, pemphigus chronicus . . . 264, 265
- SCHÖTTIN, artificial formation of hepatic substances . . . 82, 87
- thymic asthma . . . 397, 400
- SCHRAMM, on ague at Bodenwöhr . . . 140, 158
- neuralgia of the fifth pair . . . 181, 202
- sciatica . . . 181, 197
- SCHREBER, physical education of children . . . 393, 394
- angular curvature . . . 408, 409
- SCHROEDER VAN DER KOLK, structure of spinal cord and medulla oblongata . . . 35, 40
- inflammation, first in the arterial system . . . 269, 271
- SCHROFF, poisoning with haschisch . . . 440, 440
- SCHUBERG, hæmatoma of dura mater . . . 181, 197
- SCHUBERT, almond water in whooping-cough . . . 399, 403
- phenomena of delivery . . . 338
- inclination to murder . . . 458
- SCHUFT, paralysis of the muscles of the eyeball . . . 51
- SCHUH, movements of the soft palate . . . 69, 71
- vascular tumour in children . . . 400, 403
- SCHULTEN, blood in puerperal diseases . . . 387, 392
- SCHULTER, diarrhoea in infants . . . 404
- SCHULTZE, termination of the acoustic nerve . . . 37, 47
- cephalotripsy . . . 356, 361
- hydrocephalic foetus . . . 349, 350
- laceration of perinæum during delivery . . . 338, 340
- pessaries . . . 367, 369
- SCHUTZ, virulent measles . . . 410, 412
- SCHWANDA, quantity of chyle formed in a given time . . . 74, 76
- SCHWANDNER, injury of spinal marrow . . . 427, 429
- SCHWARTZ, respiratory movements of foetus . . . 335, 336
- SCHWARTZE, cholera infantum . . . 404, 405
- SCHWEBER, legal responsibility . . . 457, 459
- SCHWEGEL, abnormal bones . . . 13, 17
- pelvic deformity . . . 341, 344
- Sciatica (Schramm) . . . 181, 197
- Scirrhus of uterus (Breslau) . . . 373, 375
- Sclerema, shampooing in (Legroux) . . . 410
- SCOTT, rupture of internal and middle coats of the arteries . . . 25, 28
- influence of mercury on secretion of bile . . . 253, 257
- SCOUTETTEN, sequelæ of measles and scarlatina . . . 264, 268
- do. . . 410, 411
- SCRIVEN, laryngotomy in hydrophobia . . . 441, 441
- Scrofula (Michaelis) . . . 141, 176
- (Perrin) . . . 413
- cured by iodized food (Lebert) . . . 140, 167
- Scrofulous affection of teeth (Brück) . . . 334, 334
- Scrotum, elephantiasis of (Walton) . . . 305, 306
- Seal, new entozoa found in heart of (Jolly) . . . 114, 117
- SEATON, poisoning by belladonna . . . 437, 438
- Secale cornutum in disturbance of the accommodative power of the eyes (Willebrand) . . . 209, 214
- Secretion, influence of vitality on (Inman, Spender) . . . 77, 78
- Secretory system* . . . 253
- SEDGWICK, deficient abdominal wall . . . 416, 421
- amputation at carpo-metacarpal joint . . . 276, 277
- SEDILLOT, internal urethrotomy . . . 300, 302
- SEGUIN, accidental colours . . . 52, 54
- Selenite as a febrifuge (Clark) . . . 140, 155
- SELLER, metaphysical aspects of physiology . . . 3
- natural acid reaction of urine, &c. . . 94, 97
- SEMANAS, infantile bronchial rhonchus . . . 399
- SEMELEDER, laryngeal speculum . . . 126, 137
- do. . . 220, 229
- Semen, retention of (Rogers) . . . 304, 305
- SENFLEBEN, malformations of kidneys in atresia ani . . . 415, 419
- Sense, special, neurology of organs of (Coghill) . . . 35, 43
- on a sixth (Batty) . . . 58, 61
- Senses, the organs of (Dornbluth, Dudenhofer, Rau) . . . 51
- Sensibility, neuro-muscular (Zantedeschi) . . . 59
- of abdominal ganglia (Budge) . . . 39, 50
- loss of, in transplanted skin (Busch) . . . 59
- tactile, means of measuring (Brown-Séquard) . . . 59
- SERRE D'UZES, stereoscopic effects . . . 55
- Sewage of London (Bernays, Hofmann) . . . 468, 469
- Sex, doubtful* . . . 452

- Shampooing in sclerema (Le Groux) 410
 SHEARER, malformation of abdomen 416, 421
 Shells, formation of (Rainey) . 14, 18
 Shoulders, management of, in examination of chest (Corson) . . . 219, 224
 SIBLEY, statistics of cancer . 141, 177
 SIBSON, opium in acute rheumatism 141, 175
 — experiments on woorara . 108
 SICHEL, epithelioma of the eye . 325, 327
 SICK, phosphates in food and urine 95, 102
 SIEGERT, single vision and stereoscopic effects 51
Sight, sense of . . . 50
 Sight, cause of long and short (Wright) 50, 53
 Sigmoid flexure, stricture of (Thompson) 286, 287
 SIGMUND, cure of syphilis by inunction 140, 162
 SILBERT, local blood-letting in pregnancy 362, 363
 Silk, condition of workpeople in (Reybaud) 472
 Silver, nitrate of, discoloration of skin from (Holthouse) . . . 304, 305
 SIMON, nervous giddiness . . 179, 186
 — vesico-vaginal fistulæ . . 380, 381
 — ovariectomy . . . 376, 378
 — poisoning by strychnia . . 446, 447
 — See *Barker, Buchner*.
 SIMPSON, diseases of women . 365, 366
 — spurious labour-pains . . 338, 340
 — turning *v.* long forceps . . 354, 358
 — cranioclast . . . 355, 361
Simulated diseases . . . 451
 SIRELIUS, uræmic poisoning . 95
 Size, apparent, of objects (Lubimoff) 52, 54
 Skeleton, chemistry of (Bezold) . 13, 16
 — human (Humphry) . . . 1 5
 — of fishes, development of (Huxley) 14, 17
 SKEY, compound fracture at shoulder-joint 311, 318
 — hysterical affections of joints . 310, 315
 — mammary tumours . . . 384
 — tracheotomy for removal of tamarind-stone . . . 281, 283
 Skin, absorption of (Waller) . 74
 — influence of male parent over colour of 118
 — power of the, in detecting slight weights (Kammler) . . . 59, 61
 — loss of sensibility in transplanted (Busch) 59
 — action of, in production of disease (Smith) 264, 266
 — diseases of (Moore) . . . 264, 265
 — do., sapo-laricis in (Moore) . 264, 265
 — do., hydrochloric acid in (Kletzensky) 264, 265
 — do., in children (Caillaut, Hardy) 409
 — parasitic affections (Bazin) . 409
 SKODA, resorption of pleuritic effusion 221, 231
 SKUES, tetanus cured by extract. cannab. indic. . . 179, 184
 Slaughterhouses, public (Feit) . 467
 SLOANE, neuralgia of brachial plexus 180, 195
 SMALLMAN, cystic disease of liver in foetus 414, 417
Smelling, sense of . . . 58
 Smelling, organs of (Oehl) . . 58
 — do., in fish (Dumeril) . . 58
 Smethurst, murder of Isabella Banks by 434, 436
 SMITH (A.), poisoning by strychnia; recovery 446, 447
 SMITH (Edward), phenomena of respiration 62, 63
 — action of food on the respiration 62, 65
 — action of the skin in the production of disease . . . 264, 266
 — and BROWN-SÉQUARD, transformation of starch into sugar in the stomach 69, 72
 SMITH (J. L.), cholera infantum . 404, 406
 SMITH (T. H.), diphtheria . . 140, 165
 SMITH (T.), surgery on the dead body 273
 SMITH (Tyler), vomiting in pregnancy 386, 390
 — abolition of craniotomy . . 355, 360
 — statistics of midwifery practice . 364
 Sneezing, convulsive (Mosler) . 180, 188
 SNELLEN, influence of nerves on inflammation . . . 124, 128
 SNOW, drainage and water supply . 468
 Soda, hypochlorite of, calculation of urea by (Leconte) . . . 95, 103
 Soap lees, poisoning by . . . 446
 Sodium, chloride of, excretion of, in connection with heat of body (Ringer). 94, 99
 Solanine, action of (Clarus) . 141
 Solids, excretion of, by the lungs (Wiederhold) . . . 62, 64
 SOLL, partial amputation of the hand 276, 277
 — excision of knee-joint . . . 312, 318
Somatic injuries . . . 424
 SOMMER, Egyptian ophthalmia . 325
 Sore throat, epidemic (Ballard) . 140, 163
 Sound, mathematical theory of (Earnshaw) 56
 — velocity of . . . 57
 — intensification of (Alison) . 56, 57
 — undulations of, from membrana tympani to the labyrinth (Toynbee) . 56
 SPAETH. See *Schauenstein*.
 Speaking, movements of soft palate during (Schich) . . . 69, 71
 Speculum for the larynx (Czermak, Price, Turk) . . . 62, 67
 — in diseases of the tongue (Semeleder) 220, 229
 SPENCER, on the laws of organic form 117, 119
 SPENDER, remarks on Inman's paper on vitality . . . 77, 78
 SPENGLER, microscopical observations on Ems' Waters . . . 3
 SPENGLER, Medical Mecklenburgh 465
 Spermatocord, new glandular organ in (Giraldés) . . . 96, 104

- Spermatic passages, obliterations of (Rogers) 304, 305
 — stains, diagnosis of (Dannenberg, Las-saigne) 427, 431
 SPIEGELBERG, carcinoma of cervix 342, 348
 — chorea during pregnancy . 385, 389
 — placenta prævia, treated by Colpeurynter 351, 352
 — mechanical impediment to labour 348, 350
 SPIERS. See *Ludwig*.
 Spina bifida (Behrend) 408
 — (Allix, Behrend, Debout, Messer, Robin) 416, 420
 — cure by collodium (Behrend) 416, 420
 — iodine injections in (Ebra) . 416
 Spinal centres of the sympathetic (Budge) 39
 Spinal cord, minute structure (Schroeder v. d. Kolk) 35, 40
 — microscopic examination of, while fresh (Jacubowitsch) 37, 46
 — crossing of nerve-fibres in (Bezold, Vul-pian) 38, 48
 — non-crossing of nerve-fibres high up in (Brown-Séguard) 38
 — physiology of (Brown-Séguard) 38
 — independence of (Meyer) . 38
 — reflex movements (Brown-Séguard, Jeit-teler) 38
 — influence of lateral half on the opposite sides of the head (Brown-Séguard) 38
 — posterior column (Schiff) . 37, 48
 — double (Lenhossek) 414, 417
 — apoplexy of (Duriiau) 181, 201
 — epilepsy after injury to (Brown-Séguard) 38
 — injury of (Schwandner) . 427, 429
 Spine, affections of (Packard) . 180, 189
 — curvatures of (Bouvier) . 409
 — do. (Flemming) . 408
 — injury of (Birkett) 311, 317
 — Pott's disease of (Broca) . 311, 317
 Spleen, table of analyses of 90
 — inorganic constituents of (Oidtmann) 83, 89-91
 — enlargement of (Lees) 254
 — extirpation of human (Martini) 255
 — rupture of, in foetus (Charcot) . 414, 417
 Splenic plexus of nerves (Jaschkowitz) 39, 50
 SPONDLI, plural births 348, 349
 Sponge, compressed, anti-lactescent (Stewart) 384, 384
 SPRING, emboli in cerebral arteries 180
 STADFELDT, diabetes 95
 STANLEY, ligature of common carotid in hæmorrhage from tonsil . . 306, 307
 — deligation of subclavian, in axillary aneu-rism 306, 307
 Staphyloma posterius (Noizet) . 326, 328
 — description, symptoms, &c. . 328-9
 Starch, transformation of into sugar in the stomach (Bardeleben, Smith) . 69, 72
 — use in catarrh of the stomach (Lehmann) 235, 241
 Statistics, hospital (Hannover) . . 2, 10
 — medical (Vierordt) 95, 102
 Steam, inhaling of, by the tracheotomized (Debenham) 220, 225
 Stearrhœa nigricans (Harvey) . . 264, 265
 STEELE, case of intus-susception . 235, 243
 STEIN, modes of applying electricity 35
 STEINBERG, inflammation of vena portæ 237, 251
 STEINBERGER, first dentition . 404
 STELLWAG VON CARION, conjunctivitis of newly born 326
 STENBERG, syphilization 140, 155
 STEPHENS, placenta prævia . . 351, 352
 Stercoraceous obstruction (Theile) . 236
 — do. 286
 — vomiting (Easton) 236, 247
 Stereomonoscope (Claudet) 55
 Stereoscope (Claparede, D'Almeida) 55
 Stereoscopic effects (Siegert) . . 51
 — do. (Serre) 55
 Sterno-clavicularis muscle (Hyrtil) . 20, 24
 Sternum, congenital fissure of (Moeller) 416
 STEWART, compressed sponge, antilactescent 384, 384
 STICH, on nausea 58
 — See *Klaatsch*.
 Stillborn children (Hadaway, West) 364
 — legal questions on (Maschka, &c.) 455-6
 — See *Lung-test*.
 STILLMAN, caries of os calcis . . 312, 319
 Stimuli, electrical (Schiff) 35
 STOLZ, artificial premature labour 354, 357
 Stomach, diseases of (Brinton) . 234, 237
 — do. (Oke) 235, 240
 — do. pain as a sign of (Haber-shon) 237, 251
 — do. alkalies or acids in (Wells) 237, 252
 — catarrh of, cured by starch (Lehmann) 235, 241
 — degeneration of submucous coat of (Klob) 236, 246
 — chronic inflammation of (Leared) 234, 239
 — tumours in (Kennedy) 235, 239
 — ulcer of (Wade) 237, 251
 Stomatitis, ulcerative (Hutchinson) 234, 239
 — do. of soldiers (Bergeron) 236, 249
 Stone; lithotomy and lithotrixy . 295
 — See *Calculus*.
 STONE, chorea treated by sulphate of zinc 180, 193
 — acute necrosis; pyæmia . . 310, 312
 — sarcina ventriculi 113, 115
 STORER, uterine tents 372, 375
 STORK, laryngeal speculum 126

- STRECKER, transformation of guanin into xanthic oxide . . . 84, 93
 — on sarkin . . . 84, 93
 STRENG, health of children . 393, 394
 STREUBEL, small intestine twisted on its axis . . . 236, 245
 — do. . . 286, 286
 Stricture of œsophagus (Addison) . 279, 280
 — of rectum (Todd) . . 286, 288
 Strychnia in reflex paraplegia (Moore) . 180, 193
 — in prolapsus ani (Duchaussoy) . 405
 — poisoning by (Bennett, Simon, &c.) . 446, 446
 Stuprum, cases of (Maschka) . 452
 Sturgeon-liver poison (Wolff) . 475, 475
 STURGES, intestinal obstruction . 236, 250
 STURM, auditory and visual organs . 51
 Succinic acid, transit into the urine (Hallwachs) . . . 94, 100
 Sugar, immediate principles (Berthelot) . 82, 87
 — retrograde metamorphosis (Benvenisti) . 82, 87
 — employed in diseases of infants (Behrend) . 235, 240
 — in the body (Poggiale, Sanson) . 82, 86
 — in the chyle (Colin) . . 82, 85
 — in chyle and lymph, quantitative analysis . 85
 — transformation of starch into, in the stomach (Bardeleben, Smith) . 69, 72
 — in normal urine (Bruecke) . 95, 102
 — in the urine (Boettger) . 254, 259
 — in diabetes (Eschricht) . . 82, 86
 — do. (M'Donnell) . . 82, 84
 — do. reagent for detecting (Behier) . 125, 133
 — in severe diarrhœa . . . 240
 — Fehling's liquid for detection of (Babo) . 94, 100
 — delicate test for (Lowenthal) . 95, 102
 Suicide . . . 450
 Suicide by poisoning (Berg, Casper, Linhardt, &c.) . 450-1, 451
 Sulphuric acid, poisoning by . . 447
 Sun-stroke (Levick) . . . 180, 189
 — (Longmore) . . . 179, 185
 — (Martin) . . . 182, 190
 — (Pirrie) . . . 179, 184
 Superfoetation (Bernard) . . 414
 Suppuration, Virchow's theory of . 12
 Supra-renal capsules . . . 83
 Supra-renal capsules (Brown-Séquard, Vulpian) . . . 83, 91
 — (Zellweger) . . . 84, 92
 — fat a normal element of (Vulpian) . 83, 92
 — disorganization of, without discoloration of skin (Davey) . . 253, 255
 — extirpation of (Philipeaux) . 83, 91
 Surgery, report on, by J. W. Hulke . 273-334
 — text-books . . . 273
 Surgery, 'Vade Mecum' (Druitt) . 273, 273
 Surgery, cases (Kinloch) . . 310, 315
 — on dead body (Smith) . . 273
 SURMAY, puerperal fever . . 387
 Sutures . . . 278
 Sutures, metal (Aveling) . . 278, 278
 Swallowing, movements of soft palate during (Schuh) . . . 69, 71
 Symphysis pubis, human (Aeby) . 4
 — do. . . 14, 19
 Symptomatology . . . 124; 134
 Synarthrosis of the human body (Luschka) . 13, 16
 Synchrondrotomy (Jocolucci) . 356, 362
 Syphilis . . . 321
 Syphilis, errors of diagnosis of (Lorinser) . 141, 176
 — constitutional (Virchow) . 141, 173
 — transmission by foetus from male to female parent (Harvey) . 365, 366
 — contraction of rectum from (Bovero) . 237, 250
 — nerve disorders from (Gjor) . 179, 187
 — variola with (Bamberger) . 140, 155
 — cure by inunction (Sigmund) . 140, 162
 — mercury in (Gruber) . . 140, 162
 — do. (Lorinser and Reder) . 140, 156
 — in pregnant women (Bertin) . 385, 388
 — of uterus (Parker) . . 372, 374
 — infantile (Diday, Friedinger, Mayer, O'Donovan, Tanner, Zeisl) . 413, 413
 Syphilitic infection, mental disease from (Chapin) . . . 181, 200
 — gangrene of mouth (De Meric) . 278, 279
 — right hemiplegia (Robert) . 180, 193
 — laryngitis (Jeaffreson) . . 281, 282
 Syphilization (Danielsen, Michaelis, Pleischl, Stenberg) . . . 140, 155
 — (Boeck) . . . 141, 177
 — (Lee) . . . 321, 321
 — (Ricord) . . . 322-3
 Tactile papillæ (Gerlach) . . 37, 47
 Tænia solium from use of pork in diet . 115
 TALLEY, ulceration of aorta . 209, 213
 Tanghinia venenifera (Kölliker) . 105, 110
 TANNER, vesico-vaginal fistula . 380, 382
 — infantile syphilis . . . 413, 413
 Tannin in albuminous anasarca (Garnier) . 253, 256
 — in membranous angina (Loiseau) . 219, 223
 Tape-worm from use of raw meat (Barclay, Peacock) . . . 113, 114
 — do. (Marcus) . 405
 — cerebro-spinal symptomatology of (Heslop) . . . 236, 248
 — treatment of (Leared) . . 234, 239
 Tapping in hydatid cyst of the liver (Budd) . 253
 TARDIEU, immoral assaults . 452, 453
 — abortion . . . 455, 456
 — attentat of 14th Jan., 1858 . 425, 428
 Tarsus, contractions of (Henke) . 331
 — diseases of (Erichsen) . . 312, 319

- Tartar emetic in chorea (Gillette) . 179, 184
 — in contractile tissues (Hoppe) . 269, 272
Taste, sense of 58
Taste, locality of (Klaatsch) 58
 — organ of, in fish (Dumeril) 58
 TATUM, stricture and enlarged prostate, &c. 299, 299
 TAYLOR, amenorrhœa treated by electricity 371, 373
 — poisoning by nicotia 442, 443
 TEALE, popliteal aneurism; compression 306, 308
 — chronic inversion of womb 368, 370
Teeth 14
 Teeth, lecture on (Grimshaw) 334
 — development (Guillot, Magitot) 14, 19
 — formation of tissues of (Raney) 14
 — scrofulous affection of (Brück) 334, 334
Teeth, surgery of 334
 Telestereoscope (Helmholtz) 55
 Temperature, difference in, of saliva and the carotid blood (Ludwig) 78, 81
 Tendon of rectus femoris, division of (Brodhurst) 331, 333
 Tenia, cure of (Malago) 409, 411
 Terry, polycystic ovarian tumour 377, 379
Testicles, penis, and scrotum, diseases of 304
 Testicles, malignant disease of 304
 — malignant diseases, cases 304, 305
 — retained in abdomen, encephaloid cancer of (Johnson) 255
 — atrophy of, in infant 304
 — malignant cystic disease of (Curling) 304, 305
 — fungus of, in syphilis (De Meric) 304, 305
 — congenital absence of (Godard) 415, 419
 — supernumerary (Flogel) 414, 417
 Tetanomoter, mechanical (Heidenhain) 35, 44
Tetanus 324
 Tetanus (Erichsen) 324, 324
 — induced by the constant current (Pflüger) 36, 46
 — treatment of (De Morgan) 179, 183
 — do. by woorara (Broca, Harley, Wells) 104, 106
 — do. by extract. cannab. indic. (Skues) 179, 184
 — traumatic, cases of 324, 324
 — do. (M'Ghie) 324, 324
 — do. from wound of radial artery (Canton) 324
 — do. from fracture of the forearm (Hughes) 324, 324
 THAMHAYN, rabies and hydrophobia 179, 187
 — do. 441, 441
 — diseases of thyroid gland 283, 284
 THEILE and ABERLE, stercoraceous obstruction 236
 — do. 286
Therapeutics, report on, by Handfield Jones, M.B. 124-272
 Thermometer-tube in bladder (Coulson) 295, 298
 THIBAUT, puerperal fever 387
 THIERNESSE. See *Gluge*.
 Thigh, ununited fracture (Fergusson) 310, 315
 THOMAS, the hymen 381, 383
 THOMPSON, on the prostate 127
 — stricture of sigmoid flexure 286, 287
 — internal urethrotomy in stricture of urethra 300, 301-2
 — hæmorrhage from tonsil arrested by perchloride of iron 278, 279
 — (T.) administration of ozonized oils 268, 269
 THOMSON, external use of medicines 265, 266
 — influence of male and female parent on the progeny 117, 118
 — table of do. 118
 — embryogeny of comatula rosaceæ 117, 121
 Thoracentesis in pleuritic effusion (Gairdner) 221, 233
 Thoracic duct, inflammation of (Worms) 210, 218
 Thoracic members in man and in animals (Martins) 13, 17
 THORN, rupture of uterus 342, 346
 THORNHILL, dysentery, with aneurism of aorta 237, 250
 THORP, vesico-vaginal fistula 381, 382
 THOUVENIN, influence of muscular exercise 20
 Thrombosis of crural arteries (Flogel) 210
 Thrush (Briquet, Flugel, Gubler) 404, 406
 THUDICHUM, gall-stones 254, 263
 Thymus gland (Friedleben) 84, 92
 — (Friedleben, Jendrassik) 397, 400
 Thyroid gland, function (Fomeris) 84, 92
 — diseases of (Thamhayn) 283, 284
 TILANUS, mechanism of delivery 364
 TILT, peritonitis 377, 379
 — chronic uterine disease 373, 376
 Tinea favosa, oil of naphtha in (Chapelle) 410
 TISSEIRE, bite of viper bicornis 139, 149
 Tissue, connective, in the brain (Leubuscher) 124, 127
 — colouring of, with carmine (Wittich) 4
 — metamorphosis of, influence of benzoic acid on (Kletziusky) 95, 103
 TODD, cyclopædia of anatomy 1, 5
 — (A.) stricture of rectum 286, 288
 — administration of chloroform 111, 113
 — (L. B.) laceration of uterus 342, 347
 TOMES, dental surgery 334, 334
 Tongue, papillæ of (Beau) 58
 — formation of cicatrices on (Ullman) 235, 244
 — extirpation of (Fiddes) 278, 279
 — base of, instrument for examining (Price) 62
 — of the frog (Fixsen) 27, 33
 Touch, recognition of distance by (Wundt) 59, 61

- Touch, on practice perfecting the sense of (Fechner) . . . 59, 61
 — sensibility of, means of measuring (Brown-Séquard) . . . 59
 TOULMOUCHE, mortal wounds of abdomen 426
 TOYNBEE, sonorous undulations from membrana tympani to the labyrinth . 56
 Trachea, foreign body in (Forster) . 281, 283
 Tracheotomy, statistics of . 281, 282
 — tables of cases and of results . 221
 — (Martini) . . . 220, 226
 — do. . . 281, 281
 — in croup . . . 219, 223
 — do. (Evans) . . . 221, 231
 — do. (Barthez, Bonnet, Broadbent, Chailly, Evans, E. G., Millard, Saxer) 399, 402
 — do. death after (Bonnet) 399
 — in diphtheria (Barker) . . 281, 283
 — in epilepsy (Riccard) . . 179, 185
 — for foreign body in trachea (Forster) 281, 283
 — for tamarind-stone in trachea (Skey) 281, 283
 Transfusion of blood (Waller) . 342, 348
 Transpiration, insensible (Gasne) . 77
 Transversus colli muscle (Luschka) 20
 Traube, connection of cardiac and renal diseases . . . 254, 262
 TREBUCHET, mortality of Paris . 465
 TRENTROP, birth after death . 453, 454
 Trepanning in frontal presentation (Nusser) 356, 362
 Trephining in compound fracture of skull (Lunn) . . . 311, 316
 — do. (Curling) 311, 316
 TRIPIER, ventilation of theatres . 467, 467
 TROMMER, albumen of cow's milk . 78, 81
 TROUNCER, induction of labour in distorted pelvis . . . 354, 357
 TROUSSEAU, asthma . . . 219, 223
 — hepatic colic . . . 254
 — topical treatment of croup . 219, 224
 — do. . . 399, 403
 — dysphagia . . . 235
 — retro-uterine hæmatocele . 377, 379
 — secale cornutum in uterine hæmorrhages 371, 373
 — hysterical tremor . . . 180, 188
 — measles . . . 410, 412
 — ligature of the œsophagus . 69, 71
 — cerebral rheumatism . . 181, 201
 — scarlet fever . . . 409
 Tsetse, on the (Livingstone) . 104, 106
 Tubercle in lung (Goodwin) . 253, 258
 Tubercles, mucous (Hassing) . 141, 176
 Tuberculosis (Michaelis) . . 141, 176
 — cerebral, in children (Koechlin) 395
 — of uterus (Namias) . . . 372
 — of genito-urinary organs (Wormald) 301, 303
 TUDOR, scarifications in œdema glottidis 221, 231
 — do. . . 281, 282
 Tumours, &c., of children . . . 413
 Tumours, congenital (Lotzbeck) . 413, 414
 Tumour of the cornea (Pean) . 326, 328
 — of orbit (Foucher) . . . 326, 330
 — of the jaws . . . 311, 316
 — in the neck (Pitha) . . . 283, 283
 — do. extirpation (Nelaton) 283, 284
 — within pelvis (Gauchet) . 377, 379
 — in the stomach (Kennedy) . 235, 239
 — of thigh (Clement) . . . 276, 277
 — cancerous, effects in the chest (Budd) 221, 234
 — cystic (Birkett) . . . 320, 320
 — do. treated by sulphuric acid (Foucher) 320, 321
 — do. mammary (Collis) . . 384
 — cystoid, in neck (Drittl) . . 283, 284
 — emphysematous, on the skull (Costes) 311, 316
 — recurring fibro-plastic (Coulson) 276, 277
 — fibroid, of uterus (Klaproth) . 342, 348
 — do. recurrent, of os uteri (De Meric) 372, 375
 — fibrous, of scapula (Flower) . 310, 313
 — do. uterine (Langenbeck) . 372, 374
 — malignant, of arm, after fracture (Johnson) 276, 277
 — mammary (Barton, Skey) . 384
 — medullary, of clavicle (Bowman) 310
 — pulsating, of bone (Bouisson) . 310, 313
 — do. of pelvis (Meier) . . 310, 313
 — sebaceous, perforation of cranium (Johnson) 320, 321
 — vascular, in children (Schuh) . 400, 403
 Tunicine, organic part of the invertebrate skeleton . . . 87
 TUPPERT, congenital atresia uteri 367, 369
 TÜRK, anæsthesia and diseases of the cerebrum . . . 181, 197
 TÜRK, speculum for the larynx . 62, 67
 — do. . . 137
 TURNBULL, causes of consumption 220
 TURNER, aneurism of thoracic aorta 208, 211
 — See *Lister*.
 Turning in parturition (Buhrlen, Fleming, Lehmann, Mackenzie, Mardurowicz, Simpson) . . . 354, 358-9
 — external (Esterle, Noeggerath) 354, 358
 Turpentine, oil of, in puerperal diseases (Bonfils) . . . 387
 — vapour baths in gout, &c. (Macario) 269, 270
 Twins, unusual case of (Goldberg) 414
 Tympani, chorda (Ziemssen) . 39
 — membrana (Bonnafont) . . 56, 57
 — do. sonorous undulations from, to the labyrinth (Toynbee) . 56
 Type, change of, in disease (Kennedy) 139, 145
 Typhoid fever (Barbot) . . . 413
 — do. (Rostan) . . . 139, 146
 — do. displacement of intestines in (Breithaupt) . . . 235, 242
 Typhus, origin from overcrowding (Murchison) 140, 160

- Ulceration of the aorta (Talley) . 209, 213
 — of articular cartilage (Barwell) . 14, 18
 — chronic, of larynx (Porter) . 281, 282
 — of duodenum (Ranking) . 236, 248
 — do. vomiting of blood from (Liljeborn) . 236, 247
 — do. perforating (Wallmann) 236, 248
 — of the stomach (Wade) . 237, 251
 — of os and cervix uteri (McRuer) 373, 376
 ULLMAN, cicatrices on the tongue . 235, 244
 ULRICH, asphyxia from chloroform . 224
 — facial palsy . . . 181, 197
 — vomiting in pregnancy . . 386, 390
 Umbilical cord, tying of (Arata) . 455, 457
 — unusual twisting (Billi) . 414, 417
 Uræmia during pregnancy (Litzmann) . 385, 389
 Uræmic poisoning (Sirelius) . 95
 — do. (Heynsius) . 96, 104
 Urari (Betzold, Koelliker) . 448
 — See *Woorara*.
 URE, iodide of sodium . . 139, 154
 Urea, proportions in urine (Seller) . 94, 97
 — excretion of, in connection with heat of body (Ringer) . . 94, 99
 — calculation of amount by hypochlorite of soda (Leconte) . . 95, 103
 — absence of, in urine of yellow fever (Porcher) . . 95, 103
 Ureters, contractility of (Vulpian) . 96, 104
 Urethra (Cazenave) . . 96
 — congenital anomalies (Picardat) 415, 419
 — contusion and laceration (Demarquay) . 301, 303
 — contagious inflammations (Gyyomar) . 325
 — traumatic obstruction (Blondeau) 301, 303
 — prolapsus of mucous membrane of (Patron) . 293, 293
Urethra, strictures, calculi, &c. . . 300
 Urethra, stricture of (Wade) . 300, 301
 — do. (Civiale) . 300, 302
 — do. urethrotomy (Leroy d'Etiolles) . . 300, 302
 — do. internal urethrotomy (Thompson) . . 300, 301-2
 — do. impenetrable (Uytterhoeven) . . 300, 302
 Urethralgia . . . 195
 Urethrotome, new (Boinet) . 300, 302
 — for impacted calculus (Henry) . 301, 303
 — internal (Civiale, Leroy, Sedillot, Thompson) . . 300, 302
 Uric acid (Schiff) . . . 94, 100
 — proportions in urine (Seller) . 94, 97
 — absence of, in urine of yellow fever (Porcher) . 95, 103
 — behaviour towards Fehling's liquid for detecting sugar (Babo) . . 94, 97
 Urinary deposits, lectures on (Beale) . 94, 98
 — as microscopic objects (Beale) . 94, 98
Urinary organs . . . 93
 Urinary organs, injuries and diseases (Fleming) . . . 94, 98
 Urinary organs, injuries and diseases (Fleming) . . 300, 301
 — malformation (Duncan) . . 415, 419
 Urine, lectures on (Beale) . . 94, 98
 — analysis of (Neubauer) . . 94, 100
 — results of examination of, by Heller . 170
 — composition of human (Geist, Klingner) . 95
 — table of specific gravity of . . 97
 — normal, natural constants of (Haughton) . 93, 97
 — do. presence of sugar in (Bruecke) . 95, 102
 — do. non-existence of albumen in (Becquerel) . . 95, 103
 — in health and disease (Hassall) . 93, 96
 — natural acid reaction (Seller) . 94, 97
 — excretion of, in connection with heat of body (Ringer) . . 94, 99
 — uric acid and urea in (Seller) . 94, 97
 — allantoin in (Kohler) . . 94, 101
 — blue deposit in (Beale) . . 94, 98
 — indican in (Carter) . . 94, 97
 — on reducing the oxide of copper in (Bruecke) . . 95, 102
 — phosphates in (Sick) . . 95, 102
 — on discovering sugar in (Boettger) . 254, 259
 — albuminous, treated by mercury (Kennedy) . 253, 258
 — fungoid productions in alkaline and albuminous (Hassall) . . 114, 116
 — diabetic, reagent for detecting sugar in (Behier) . . 125, 133
 — saccharine (Cruse) . . 95, 102
 — diagnosis of melanotic cancer by (Eiselt) . 139, 149
 — of yellow fever, absence of urea and uric acid in (Porcher) . . 95, 103
 — of the dog, creatine and cynuric acid in (Liebig) . . . 94, 100
 — extravasation of (Coote) . . 298, 299
 — retention of, in a child (Wormald) . 301, 303
 — do., from engorgement of prostate (Mercier) . . 298, 299
 — do., symptomatic of metritis (Nonat) . 372
 — do.; puncture of bladder (Paget) 298, 299
 — suppression of (Alexander) . 253, 257
 — incontinence and retention, after labour (Martin) . . . 385
 — do., in children (Hewson) . 253, 255
 — do. (Bercieux, Destouches, Pluviez) . . . 407
 — simulated adulterations of (Heller) . 451, 451
 Urticaria, factitious (Gull) . . 265, 268
 Uterine flexions (Virchow) . . 368, 370
 — tents (Storer) . . . 372, 375
 Uterus, statics of (Aran) . . 367, 369
 — gravid (Priestley) . . 335, 336
Uterus, &c., defective conditions . . 340
 — development, dislocations . . 367

- Uterus, anomalies of uterine secretions, textural diseases, &c.* 371
- Uterus, diseases (Aran) 365
- do., chronic (Tilt) 373, 376
- absence of (Duigan) 367
- atresia of (Rokitansky) 415, 419
- congenital atresia of (Dietz, Tuppert) 367, 369
- catarrh, purgative enemata in (Aran) 372, 374
- chancre of (Kollock) 372, 374
- Clarke's cauliflower excrescence (Betz) 373, 375
- congestion (Brosius) 372, 375
- chronic inflammations (Becquerel) 372, 375
- do. (Jacobovics) 372
- inversion of (Bissill, M'Clintock, Quackenbush, Teale, West) 368, 370-1
- do. (Wardleworth) 342, 347
- irritable (Coghill) 372, 374
- neuralgia of (Becquerel) 372, 374
- polypus of (Elkington, Hardy, Maier, Wagner) 372, 375
- prolapsus of (Bonorden, Breslau, Gaillard, Greaves, Nourse, Routh) 367-8, 370
- retroversion of gravid (Barnes, Godefroy, Greaves, Hecker, Negrier, Oldham, Pingault) 341-2, 344-5
- do. (Kelly) 368, 370
- do., cauterization (Bonnet) 367, 369
- do., with retention of urine (Bakewell, Basham, Evans) 342, 345
- rupture of (Atkins, Aveling, Hicks, Kapler, Lehmann, Meacham, Thorn, Todd) 342, 346-7
- do., in osteo-malachial pelvis (Pagenstecher) 342, 347
- scirrhus and fibrous polypus of (Breslau) 373, 375
- suppuration of (Salzgeber) 349, 350
- syphilis of (Parker) 372, 374
- tuberculosis of (Namias) 372, 374
- fibroid tumours of (Klaproth) 342, 348
- injections into (Noeggerath, Scanzoni) 372, 375
- bilocularis (Holst) 342, 348
- bicornis (Krieger) 415, 419
- unicornis (Kussmaul) 367, 368
- Uva ursi, as obstetrical agent (Beauvais) 362, 363
- WATTERHOEVEN, impenetrable strictures of urethra 300, 302
- Vaccination (Grunder) 410
- (Boefeld, Nittinger) 480, 480
- public (Husband) 139, 147
- as a remedy in pertussis 220, 225
- do. . . . 399, 403
- for removal of nævi (Legendre) 400, 403
- and revaccination (Cause, Faber, &c.) 480, 481
- do. in the army (Reed) 139, 147
- Vaccine lymph (Andrews, Friedinger, Landell) 410
- Vagi, influence of, on the heart's action (Pfluger) 27, 31
- Vagina and external generative organs, diseases of 380
- Vagina, absence of (Duigan) 367
- atresia of (Rokitansky) 415, 419
- closure of, impeding delivery (Branco, Cuppaidge, Moritz) 341, 344
- cysts of (Ladreit) 381, 383
- inversion of (Friedlander) 415
- narrowing, from use of cautery (Anselmier) 381, 383
- perforation of, in extra-uterine pregnancy (Rizzo) 340
- rupture of (Lehmann) 342, 345
- VALENTA and WALLMANN, hydromeningocele 395, 397
- VALENTIN, action of contracted muscles on the atmosphere 20, 22
- VALENTINI, diseases of conjunctiva 325
- VALERIUS, treatment of lupus 264
- VALLEE, anatomy of the eye 51
- Valgus pedis, operated (Heiberg) 331, 333
- Valves of the heart (Joseph) 83, 91
- do., mechanism of (Rudinger) 26
- VAN BENEDEN, reproduction of echinococci 114, 116
- pentastoma 114
- VAN BIERVLIET, section of the vagi 39
- VAN GEUNS, extra-uterine pregnancy 340, 343
- VAN ROYE, propagation of granular, purulent, contagious ophthalmia 325
- VANZETTI, aneurism of orbit 327, 330
- treatment of inflammation by digital compression 209, 215
- do. . . . 274, 275
- Vapour, employment of medicines in (Nevins) 269, 271
- Varicocele (Nelaton) 304, 305
- galvano-caustic treatment (Pitha) 304, 305
- subcutaneous section of veins in (Lee) 304, 305
- Variola, combination with other diseases (Bamberger) 139, 150
- combined with syphilis (Bamberger) 140, 155
- relations with varicella and varioloid (Gintrac) 410, 412
- Vascular system 25
- Veins, pulmonary, abnormality of (Bochdalek) 415, 418
- VEIT, hæmorrhagic measles 139, 150
- do. . . . 410, 412
- Vena cava, anomalous course of (Dorsch) 415, 418
- Vena portæ, inflammation of (Steinberg) 237, 251
- Ventilation, warming, and lighting (Kinnell, Tripier) 467

- Ventilation, explosions of water-apparatus for (Guerard) . . . 467
- Ventricles, communication between the (Dusch) . . . 28, 34
- VERHAEGHE, rarity of phthisis on seacoast . . . 219, 222
- Vermiform appendix, perforation of (Bamberger) . . . 235, 243
- VERNEUIL, stoppage of the radial pulse during forcible extension of arm . . . 26, 29
- VERNOIS, influence of dust on health of artisans . . . 472, 472
- Vertebræ, dislocation of second, of neck (Maschka) . . . 427
- Vertebral characters of pterosauria (Owen) . . . 13, 14
- VERY, hydrocele of tunica vaginalis . . . 305
- VEZIN, question of sound mind . . . 458
- VIERORDT, medical statistics . . . 95, 102
- VILLENEUVE, lying-in hospitals . . . 387
- VINES, congenital encephalocele . . . 415, 420
- Viper bicornis, bite of (Tisseire) . . . 139, 149
- VIRCHOW, discourse on Prof. Müller . . . 3
- cellular pathology . . . 3, 12
- do. and on irritation . . . 127-8
- inflammation and suppuration . . . 12
- ascites in new-born child . . . 414, 417
- parenchymatous inflammation . . . 124, 130
- acute inflammation of parotid gland . . . 235, 241
- the true neuroma . . . 124, 126
- puerperal diseases . . . 387, 392
- constitutional syphilis . . . 141, 173
- and ROKITANSKY, uterine flexions . . . 368, 370
- Viscera, abdominal, malposition of (Haber-shon) . . . 237, 251
- do. location of, in case of dysentery, &c. (Thornhill) . . . 237, 250
- do. diseases (Ward) . . . 254, 261
- Vision, single (Siegert) . . . 51
- derangement of mutual (Graefe) . . . 55
- effects of santonine on (Martini, Mialhe) . . . 52, 54
- binocular (Panum) . . . 55
- do., theory of "relief" in (Giraud-Teulon) . . . 55
- do. influence in calculating distance (Dove) . . . 55
- Vital capacity of the lungs (Arnold) . . . 67
- do. relation with pulmonary affection (Schnepf) . . . 67
- do. effect of old age on (Geist) . . . 67
- causes (Heale) . . . 2
- point, cause of death after removal of (Brown-Séguard) . . . 38, 49
- do., new observations on (Flourens) . . . 38, 49
- Vitality, influence of, on secretion (Inman, Spender) . . . 77, 78
- of nerve-fibres (Kölliker) . . . 35, 44
- VOGEL. See *Neubauer*.
- VOGLER, hydrostatic test for the lungs . . . 455, 456
- medical laws of Nassau . . . 463, 463
- VOGT, paralysis of children . . . 394, 395
- Voice, loss of, cured by electricity (Posner) . . . 220, 225
- VOISIN, retro-uterine hæmatocele . . . 377, 380
- VOLKMANN, on irradiation . . . 52, 55
- effect of practice in recognising the distance between two points placed on the limb at the same moment . . . 59, 61
- Voltaic narcotism for local anæsthesia (Richardson, Waller) . . . 110, 111-12
- VOLTOLINI, affections of the ear from scarlet fever . . . 395
- Vomiting, action of pneumogastric in (Bulatowics) . . . 39, 49
- in catarrh of the stomach (Lehmann) . . . 235, 241
- in pregnancy (Barker, Dezon, Hergott, T. Smith, Ulrich) . . . 386, 390
- of blood from ulcers in duodenum (Liljeborn) . . . 236, 247
- of food (Duncan) . . . 235, 242
- stercoraceous, in obstruction of the bowels (Easton) . . . 236, 247
- Voss, inversion of urinary bladder and luxation of hips . . . 294, 294
- VULPIAN, contractility of the blood-vessels . . . 26, 30
- duration of the heart's action after death . . . 26, 29
- do. 125, 131
- crossing of nerve-fibres in the cord . . . 38, 49
- effect of stimuli applied to the liver and kidneys . . . 26, 30
- on the supra-renal capsules . . . 83, 92
- normal presence of fat in the supra-renal capsules . . . 83, 92
- contractility of ureters . . . 96, 104
- frogs poisoned by animal exhalations . . . 105
- artificial respiration in poisoning with woorara . . . 105, 109
- Vulvar hyperæsthesia, glycerine in (Paupert) . . . 381, 383
- WADE, ulcer of the stomach . . . 237, 251
- urethral stricture . . . 300, 301
- WAGENER, development of entozoa . . . 114, 117
- WAGNER, physiology . . . 10
- human cervical sympathetic . . . 39, 50
- on uterine cancer . . . 127
- fibrinous polypus in uterus . . . 372, 375
- WALD, legal medicine . . . 422, 423
- WALLER, transfusion of blood . . . 342, 348
- cutaneous absorption . . . 74
- extra-uterine foetation . . . 341, 343
- on section and degeneration of nerves (Bernard) . . . 39
- experiments on Richardson's mode of voltaic narcotism . . . 110-11, 112
- how actiniae kill their prey . . . 104, 106
- WALLMANN, patent foramen ovale in the adult . . . 27, 34
- do. 209, 217
- aneurism of hepatic artery . . . 211

- WALLMANN, submucous gastritis . 235, 242
 — perforating duodenal ulcers . 236, 248
 — rupture of internal membrane in arteries . 427, 430
 — See *Valenta*.
 WALSH, poisoning by chloride of barium . 439, 439
 WALTON, elephantiasis of scrotum . 305, 306
 WARLOMONT, military ophthalmia . 325
 WARD, diseases of abdominal viscera . 254, 261
 — popliteal aneurism ; 'compression . 307, 309
 — congenital fissure of cheek . 278, 279
 — laceration of soft palate . 278, 279
 — human osteology . . 1, 5
 — See *Adams*.
 WARDLEWORTH, inversion of uterus . 342, 347
 Water in the nerves, influence (Birkner) . 35, 44
 — cold, effect on the nervous system (Preiss) . 35, 45
 — baths, permanent, in larger operation . 275, 275
 — wounds (Manso) . . 468
 — supply (Snow) . . 468
 — do. of Vienna (Knolz) . 467, 468
 — closets for public establishments (Duponchel) . . 468
 WATERS, blood-vessels of the lung . 25, 28
 WATSON, vesico-vaginal fistula . 380, 382
 — croton oil in hydrocephalus . 180, 188
 — do. . 394, 396
 — excision of knee-joint . . 312, 318
 — on Pirogoff's operation . . 276, 278
 Weather, influence on disease (Webster) . 268
 WEBB, loose cartilage from the knee-joint . 14, 18
 — poisoning by binoxalate of potash . 444, 444
 WEBER, new vessels in cartilage during articular inflammation . . 126
 — changes in cartilage in disease of joints . 310, 314
 WEBSTER, influence of weather on disease . 268
 WEDL, rachitis of tubular bones . 408
 WEICKER, complementary colours . 52
 Weights, slight, power of the skin in detecting (Kammler) . . 59, 61
 WEISSE, raw meat in diarrhœa of infants . 236, 246
 — do. . 405, 406
 WEISSMANN, origin of hippuric acid in urine of herbivora . . 94, 100
 — do. in man . 94, 100
 WELCKER, number of blood-corpuscles . 27, 31
 WELLS (E.) alkalies or acids in stomach disorders . . 237, 252
 WELLS (Spencer) ovarian disease . 376, 378
 — unilocular ovarian cyst . . 376, 378
 — cases of ovariectomy . . 376-7, 378
 — treatment of tetanus by woorara . 104, 107
 WENZEL and GRUBER, ossiculum tegmenti tympani . . . 13, 17
 WERNERT, state medicine in France (Upper Rhine) . . . 463, 464
 WERTHEIMER, angina pharyngea . 397, 400
 WEST, cerebral symptoms . . 394
 — membranous croup . . 399
 — diseases of infancy . . 392, 394
 — sudden death in infancy . 398, 401
 — replaced inverted uterus . 368, 370
 — (R. U.) stillbirths in private practice . 364
 — puerperal peritonitis . . 377
 — anencephalian monster . . 415, 418
 WESTON, poison of the adder . 104, 105
 — do. . 448, 448
 Whale, bile of (Schlossberger) . 83, 89
 — ear of (Claudius) . . 56, 58
 WHALLEY, purpura, yielding to gallic acid and mercury . . 210, 218
 WHEELHOUSE, median lithotomy . 295, 296
 WHITEHEAD, treatment of pertussis . 219, 221
 WHITLEY, rheumatic fever . 141, 174
 WIDERHOFER, diaphragmatic hernia . 416, 421
 — ileus in new-born child . . 414, 417
 WIEDERHOLD, excretion of solids by the lungs . . 62, 64
 WILBRAND, forensic psychology . 457
 WILDE, gonorrhœal ophthalmia . 326
 — rape on infants . . 453, 454
 WILKS, pathological anatomy . 124, 126
 — morbus Addisonii, melanaemia, &c. . 254
 — sanguineous meningeal effusion . 180, 195
 — See *Pary*.
 WILLEBRAND, secale cornutum in disturbance of accommodation-power of the eyes . 209, 214
 WILLEMIN, inhalation of carbonic acid in granular pharyngitis . . 220, 228
 WILLIAMSON, on the wounded from mutiny in India . . . 273
 WILLIAMSON, fistula in perineo . 301, 303
 — condition of lung in infants born alive . 455, 456
 WILLIGEN, appearance of light in the eye . 51, 54
 WILLIS (C.) after-pains . . 385
 WILLSHIRE, chronic diuresis, employment of belladonna . . . 253, 257
 Windsor, epidemic of fever at (Murchison) . 140, 171
 Wine, plastered (Chevallier, &c.) . 475, 476
 WINTER, vaccination . . 480, 481
 WISE, lithotomy and after-treatment . 295, 295
 WITTICH, colouring of tissues with carmine . 4
 — influence of cardiac ganglia on movements of the heart . . 27, 31
 WITTMACK, popular dietetics . 393
 — do. . 461, 461
 WOLF, cephalotripsy . . 356, 362
 WOLFF, chronic intestinal catarrh . 237
 — poisoning by fried sturgeon-liver . 475, 475
 Women, diseases of . . . 365

- Women, diseases of (Gooch, Simpson) 365, 366
- Woorara, action of (Claparede, Funke, Haber, Hoppe, Kölliker) 104, 108-9
- do. (Betzold, Kölliker) 449
- Dr. Sibson's experiments on 108
- treatment of tetanus by (Broca, Harley, Wells) 104, 107
- artificial respiration in poisoning with (Vulpian) 105, 109
- WORDSWORTH, cyst in the orbit 327, 330
- WORMALD, symptoms of stone, &c. 295, 297
- retention of urine in a child 301, 303
- Worms, cerebro-spinal symptomatology of (Heslop) 236, 248
- WORMS, inflammation of thoracic duct 210, 218
- Wounds (Mair) 425, 428
- Wounds of the chest* 285
- Wounds, in mutiny in India (Williamson) 273
- in Italian campaign (Appia) 273
- transverse, of blood-vessels (Savory) 25, 28
- poisoned 424, 428
- of the neck, punctured (Nothling) 427, 429
- gunshot (Appia, Billroth) 273, 273-4
- do. of the heart (Jackson) 285, 285
- do. by compressed air (Pelikan) 425, 428
- do preparations of (Williamson) 273
- WRIGHT, long and short sights, and voluntary contraction and dilatation of pupil 50, 53
- WRIGHT, case of hydrophobia 179, 185
- do. 441, 441
- WUNDERLICH, relapses in typical diseases 126, 138
- enlargement of lymphatic glands 254, 261
- WUNDT, muscular movement 20, 22
- tactile recognition of distance 59, 61
- Wu-tsau poison (Christison) 449, 449
- WYTHES, infantile apoplexy 179, 184
- Xanthic oxide, on presence of (Kletzinsky) 94, 101
- normal in the body (Scherer) 84, 93
- transformation of guanin into (Strecker) 84, 93
- Yellow fever (Berchon) 139, 147
- at Jamaica, in 1856 (Lawson) 140, 172
- absence of urea and uric acid in urine of (Porcher) 95, 103
- YOUNG, hydrocele 304, 306
- ZANTEDESCHI, neuro-muscular sensibility 59
- ZEISL, syphilis in children 413
- ZEISSING, breathing of child as test of life 455, 457
- ZELLWEGER, on the supra-renal capsules 84, 92
- ZELTING, registers in Ostfriesland 465
- ZIEMSEN, chorda tympani 39
- Zinc, poisoning by (Ogle, Santesson) 450, 450
- oxide of, in sweats of phthisis (Jackson) 253, 255
- sulphate of, in chorea (Stone) 180, 193
- ZINK, simulation of idiocy 451, 452





